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MAN AND THE COSMOS

MAN AND THE COSMOS

AN INTRODUCTION TO METAPHYSICS

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BY

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TO

MY TEACHERS AND FRIENDS

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School of Theology
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PREFACE

THE following work is a systematic consideration of the fundamental problems and concepts of philosophical thought in the light of recent discussion in science and philosophy. The leading motive of the entire work is the problem of Human Personality. I have therefore given the largest amount of space to the treatment of the Self. But, since one cannot consider the place of personality in the universe without being drawn into the fundamental problem of metaphysics, namely, that of the structure of the universe as a whole, I have tried to give just consideration to the latter problem. Moreover, since philosophy is the *thinking* consideration of fundamental questions, one must settle accounts with the problems of thought and knowledge. I have, therefore, begun with a comprehensive treatment of these problems.

My theory of knowledge is realistic, but it differs materially from the standpoints of most of the new realists. I hold that the true antithesis in theories of knowledge is not between realism and idealism, but between realism and mentalism or subjectivism. The great idealistic tradition in metaphysics, from Plato to Hegel, Bradley, and Bosanquet, is not subjectivistic in theory of knowledge. In the main, I sympathize most with this tradition, although I have found it necessary to cricitize the concepts of the Absolute, and the equivocal treatment of Time, Progress, and Personality, in recent representatives of metaphysical idealism. To me the dominating note of the great idealistic tradition is the ever renewed attempt to determine, in the light of reason and of the history of culture, the humanistic values of experience and the place of these in the universe. My conception of the meaning of the universe is dynamic. Therefore the metaphysical standpoint of the following work might be called *Dynamic Idealism*, in the sense that it aims to find in the living universe a home and scope for *humanistic ideals* or *values*. My chief quarrel with pragmatic humanism is that its humanism is too narrow, and that it tends to slight the place of order or reason in man and the universe.

But I have no interest in "philosophy as the art of affixing

labels," to use J. E. Creighton's happy expression. Labels are convenient for cataloguing and storing goods for ready access, but, in the vital, many-sided and global enterprise of thought, which philosophy is, they are dangerous; perhaps their harmfulness outweighs their usefulness. I know no great thinker whose philosophy is not misrepresented by such labels as "idealistic," "realistic," "rationalistic," "empiristic," etc. I hold no brief for any "school" or "movement" of thought. I am interested only in trying to puzzle out such of the meanings of the world as I can.

The extent of my indebtedness to philosophers past and present will be obvious to the instructed reader. It would be quite impossible, within the limits of a preface, to make adequate acknowledgment. In general, I have learned much from those whom I have criticized sharply. I cannot, however, let this opportunity pass without thanking my former teachers in the Sage School of Philosophy of Cornell University, alike for their instruction, example, and continued interest. And to the dear and inspiring memory of the man to whose instruction and warm personal interest I owe the foundation of my philosophical scholarship and the encouragement to go on with it, the late William Clark of Trinity College, Toronto, I here pay my tribute of gratitude and affection.

I am deeply indebted to the thoughtful interest of President William Oxley Thompson in suggesting, and to the trustees of the Ohio State University in sanctioning, my relief from routine duties in order to bring this work to completion.

I am indebted to my colleagues in the Department of Philosophy, Doctors A. E. Avey, A. R. Chandler, and R. D. Williams, for their never failing interest, and, especially, for the cheerful alacrity with which they have relieved me of my teaching duties in order that I might finish and publish this book. For a number of stylistic suggestions I am indebted to Doctor Chandler. Doctors J. E. Creighton, Chandler and Avey have assisted me materially in proofreading.

I have incorporated portions of articles published, at intervals during the past twenty years or more, in *The Philosophical Review*, *The Journal of Philosophy*, and *The International Journal of Ethics*. I make acknowledgments to the editors of these periodicals.

JOSEPH ALEXANDER LEIGHTON

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MAN AND THE COSMOS

CHAPTER I

INTRODUCTORY: WHAT IS METAPHYSICS?

I. The Scope of Metaphysics

The origin of the term "metaphysics," *ta meta ta physica,* "the [books] after the physics," the title given by an editor to a collection of writings by Aristotle, does not throw much light on the scope of the discipline. Probably the editor meant by the title to indicate that the problems thereof should be taken up after one had studied natural science. *Meta,* "after," was later taken to mean "beyond" or "above," and "metaphysics" the science of that which transcends physics. In the body of the writings in question Aristotle calls the study *first philosophy,* the *science of being* or *ontology,* and *theology.* It may be defined, provisionally, as the science of the first principles of reality, or the theory of the structure and meaning of reality as a whole, or the theory of the nature of the cosmos. Philosophers are not in entire agreement as to the precise scope of the subject. All are agreed that metaphysics deals with the problems of the structure and meaning of reality; but some hold that epistemology, the doctrine of the nature of knowledge and its place in reality, is a separate discipline. Some hold that the problems of the place of values in reality or of the relationships of existence and value (axiology) do not belong to metaphysics. If one accepted these distinctions, philosophical system would consist of three parts—*epistemology, metaphysics,* and *axiology,* or the theory of the place of truth, goodness and beauty in the universe. I hold that metaphysics includes all these problems and, therefore, is identical with philosophical system. While it would not be in accord with historic usage to deny the term "philosopher" to every thinker who has not

achieved a systematic conception of the universe, a cosmology or metaphysics, a full or well-rounded philosophy is a theory of the universe. Hence metaphysics is identical in scope with philosophical system. It is the theory of the first principles of reality. It is impossible to formulate a theory of truth or knowledge without formulating a theory of reality. It is equally impossible to consider the place of values in reality without raising the entire problem of the nature and place of personality; and the latter problem includes all the problems of the relation of the mental and the physical, of the individual and the universal, of identity and diversity, causation, substance, space and time, thought and reality. Since every fundamental problem of philosophy is interlocked with all the others, it is, in the end, the most consistent procedure to recognize that metaphysics and philosophical system are identical in scope and content.

Of course the term philosophy, as a comprehensive name for certain studies, now is usually employed to include a number of subordinate subjects—logic, ethics, æsthetics, the philosophy of religion, social and political philosophy. Until recently it included psychology, but the latter is now generally regarded as a more or less independent discipline. Every science involves philosophical problems, but the above-mentioned subjects all raise, in one form or another, the problem of values and thus start metaphysical questions of central import.

Thus metaphysics is the clearing house for all fundamental philosophical problems. It is the comprehensive discipline in which all philosophical issues and theories converge. Indeed, inasmuch as the special sciences, such as physics, biology, psychology, and sociology, set out from unexamined dogmatic assumptions and issue, severally, in various uncoördinated results which require synthesis, in order to yield a consistent world view, to metaphysics belongs the twofold task of critically examining the primary assumptions of the sciences and of synthesizing their conclusions into a harmonious whole. As a critical inquiry into the validity, scope and interrelations of the respective fundamental assumptions and conclusions of the special sciences, metaphysics is the criticism of the categories, that is, of the chief concepts which man uses in the ordering and mastering of experience.

But philosophy is not limited to the consideration of the fundamental problems of pure science. The affective personal and

interpersonal value attitudes and experiences embodied in moral and social relations, in æsthetic experience and religion, likewise involve philosophical problems; especially when these value attitudes and the beliefs that are basic to them come into conflict with scientific theories. Thus, we find raised the problem of the ultimate relation of existence and value—how far does the course of reality honor and sustain the values that have their immediate seat in the life of human personality? To attempt to thresh out such problems is to embark on the wide and stormy ocean of metaphysics.

Metaphysics, the heart of philosophy, seeks by persistent reflection to see things steadily and to see them whole; in Goethe's words, *"Im Ganzen, Guten, Wahren resolut zu leben."* In other words, metaphysics seeks a consistent and total interpretation of experience. It cannot be content with any partial or abstract view of life and reality. A system of philosophy, or metaphysics, is a union of a world view and a life view in one harmonious, complete, integral conception. In so far as any man strives to attain, by rational inquiry, a consistent and comprehensive view of life and reality, he is a metaphysician. The only differences between thinking human beings in this regard lie in the persistency, thoroughness, and comprehensiveness with which they pursue metaphysical reflection. It follows, of course, in view of the fragmentariness and the discordancies of our experiences and the imperfection of our analysis and synthesis of the meanings of experience, that metaphysics must remain in this life incomplete. Only a complete or perfect experience of the universe would bring to man a complete metaphysics; and on the other hand, a perfect experience would abolish the need for metaphysics. It is precisely the fragmentariness and inconsistency in our actual experience that drives us into metaphysics. As Mr. Bradley has wittily said, "Metaphysics consists in finding bad reasons for what we believe on instinct. But to find these reasons is no less an instinct."

Every special science and every special form of practical activity interprets the facts of experience from some limited and one-sided or abstract point of view. *Metaphysics aims to correct these abstractions.* For example, the physicist and the chemist assume the reality of matter, energy, space, motion, time, the uniformity of causation, the mathematical equivalence of causes and effects, the correspondence of the mental categories of number and

magnitude with the facts of nature. They do not inquire critically how far these assumptions may be warranted, or how the mind can know that these so-called entities exist independently of the mind. They do not inquire critically into the relations between our sense perceptions and matter and energy regarded as permanent or substantial entities. Even the mathematician usually assumes the infinitude of space, time and number, without a critical inquiry as to what infinitude may mean in these relations. The physicist and the chemist employ the doctrine of the conservation of energy without stopping to ask how this principle is to be squared with the infinite duration of the universe, the second law of thermo-dynamics, the apparently creative character of the evolutional life process, the belief in human personality and freedom. A biologist may assume the uniqueness of the life processes without raising the question how this uniqueness comports with the mechanistic conception of the universe. Or a biologist may conduct his inquiries on the assumption that there is no difference between vital processes and mechanical processes, without stopping to inquire how the reduction of life to mechanism affects the position of human thought and human values in the world. A psychologist may study the conscious behavior of human beings and the relations of conscious behavior to unconscious behavior. He may treat the mind as a mere mechanism differing only in complexity from a crystal, for example, summarily dismissing the self or personality from court in any other sense than that of a physico-chemical mechanism. A sociologist may assume that the individual's character and actions are the joint products of the physical and social environment; ignoring the problems of individuality, responsibility, freedom and creativeness; whereas the moral agent, the teacher, the judge, the social administrator, assumes as his working hypothesis responsibility and freedom.

When man as a reflective being stops to take stock of the universe as a whole, of himself as a whole and of his place in the universe, he cannot be satisfied with jarring assumptions and doctrines. He *must* ask himself, "Am I really only a bit of cunning mechanism which has just chanced to occur as one of the infinite number of possible permutations and combinations of mass particles in a blind and meaningless process of things? Is my belief that I am a self-determining rational agent, an utter illusion; and if so, how could this illusion have arisen? Are the values, in

the seeking and achieving of which I seem to be satisfying the deepest instincts of my being—the values of knowing and contemplating the spectacle of things, of creating and enjoying beauty, inner harmony and social harmony, the values of adding to the sum of knowledge and beauty, of the communion of souls in friendship and love, of loyalty to noble causes, of that communion with the nature of things which is religion at its highest—are all these values illusory and transitory by-products of the insensate mechanism of the universe?

A man may be a fairly good workman in field or factory or counting house, he may be a reputable citizen and a decent husband and father, he may be even a faithful pedestrian worker in science, without raising these questions. But if he lift his nose from the grindstone of his daily tasks to ask himself *what is the good, what is the meaning, wherein consist the value and dignity of human life,* he cannot help asking such questions. If he be content with a treadmill existence all his days, he need not philosophize. But if he raise the inner eye of thought to contemplate, however intermittently, the nature of his being, the meaning of the sum of things, and to consider his own place and destiny therein, he thereby becomes a metaphysician. Hence the perennial interest and justification of metaphysics. One need not think seriously or obstinately in regard to the fundamental problems of human existence; but, if one wishes *reflectively* to apprehend the meaning of human life and its place in the world, one must enter upon the pathway of metaphysical inquiry. For a whole nest of unquestioned assumptions and beliefs is concealed not only in everyday practical knowledge and religious attitudes, but as well in the procedures and conclusions of the various sciences. Every science and every form of practical activity is a special and abstract or one-sided way of dealing with the field of experience and reality. Every special science and practical activity involves assumptions or theories as to the meaning and place of its particular data, concepts and interests in the whole system of reality. Metaphysics corrects the abstractness and the inconsistency of these special assumptions and beliefs by aiming at the most complete and most consistent reflective interpretation of experience in its totality. Naïve thought and belief, and science, which is a more rigorous analysis of special aspects of naïve thought, are fragmentary and sometimes internally inconsistent in their results. The rational

impulse impels us towards a coherent world view, which shall be at the same time a coherent life view. The one common presupposition of rational living and of philosophy is that the universe is in some sense a cosmos, an orderly or intelligible whole. Metaphysics asks whether this presupposition be justifiable. In our quest for a comprehensive and harmonious view we may have to put up with serious gaps. We may be able to discover only broken glimpses of the universal order; but, since the ultimate consistence or coherence of reality and its harmony with the general structure of human thought are postulates which gain better warrant the more we try to understand the world and our place in it, the metaphysical enterprise is justified. Since the realm of experience is a many-hued process, one must not expect to secure a world view cheaply, and the outline sketch of reality which metaphysics may afford will doubtless seem colorless and lifeless by contrast with the vivid hues of concrete experience. *"Grau, theurer Freund, ist alle Theorie, und grün des Lebens goldner Baum."* But at least one may hope to attain the satisfaction of knowing more clearly where one stands in regard both to the trustworthiness, the limitations and the implications of human experience and deed. And no clear or consistent notions are attainable on these points without metaphysics.

II. The Method of Metaphysics

Metaphysics takes its point of departure from the nature of human experience *as a whole*. Its methods are the *analysis* of experience in its totality in order to determine its main features and their interconnections; and the *synthesis* of the results of analysis into a consistent and comprehensive conception of the meanings and implications of experience. Metaphysics can be a genuine intellectual procedure only in so far as it draws from actual experience and finds in actual experience the justification for its constructive work. Experience is always in flux and is fragmentary. Thought is impelled, when it is thoroughgoing, to comprehend the flux and to piece out the fragments into a harmonious whole. Every serious attempt to do this is a metaphysics. The philosopher is justified, since he is compelled by the urge of thought, in transcending actual experience in order to render complete and coherent the implications thereof. The problem as to

how far, and in what directions, the philosopher is warranted in transcending the actual can only be solved by the whole course of metaphysical inquiry; but, in view of the impermanence of experience and the immense difficulties which confront the attempt to make it consistent in implication, only partial success can be expected in this undertaking. "All things excellent are as difficult as they are rare"; and this most excellent of things is most difficult.

Often the claim is put forward that there is some peculiar method by which the problems of metaphysics are solved. M. Bergson has argued for the method of *intuition* or direct vision of life as the key to the solution of metaphysical questions, in contrast with the geometrizing and mechanizing procedure of the intellect. We shall examine this doctrine fully later on. Suffice it to say now that vision, feeling or direct experience, without interpretation, is neither science nor philosophy; and that any proposal which would brush aside the tested methods by which the thought of mankind has advanced steadily, if slowly, is suspect. Fichte and Hegel employed the dialectic method. Briefly, this consists in finding in the development and overcoming of oppositions or contradictions in thought the key to the conception of reality as the absolute and harmonious and living synthesis in which all oppositions are taken up and reconciled, all contradictions healed. Undoubtedly the aim of metaphysics is the resolution of all oppositions, the annulment of all contradictions in a harmonious totality of insight. But this ideal does not give to the dialectic method the prerogative of being *the* method of philosophy. Its advocates have found their cue in the development of conscious selfhood and the social and spiritual development of mankind. To apply the dialectic method to the interpretation of nature, as well as of human culture, is to assume that the whole reality is the evolution of selfhood or personality. It is to assume the fundamental doctrine of metaphysical idealism or spiritualism. There may be grounds for regarding the development of selfhood as the most important clew to the meaning and purpose of reality. But the philosopher has no right to begin with such an assumption, nor even to assume that dialectical evolution furnishes a sufficient key to the nature and destiny of spirit or personality. We shall find occasion later, in connection with the study of personality, to consider more fully the meaning and value of the dialectical method. Suffice it to say now that we cannot accept it as *the* method of philosophy or metaphysics, since it is

not relevant to the many other problems which belong to our study. If we could begin with the proposition that nothing is real except spirit or conscious selfhood, we might seriously consider whether we should not proceed wholly by the dialectic method. But we must begin with the obvious assumption that experience is the basis of metaphysics; and it is by no means self-evident that experience not only is always owned by selves, but is *of* nothing except selves. Truly experience implies that I am as an experient, but it does not necessarily follow that whatever I experience is spirit and nothing but spirit.

"There is experience," and "I, whatever else I may be, am an experiencing and thinking being"—such are the inevitable and indubitable propositions from which the metaphysician must start. He may doubt everything further—how experience comes to him, what it signifies, what more he himself is, whether there is any other self, whether anything is permanent, whether perhaps the world of his experience is not a dream and he the only dreamer, but he cannot doubt that he, the experient of the movement, is having experience and thinking about its meaning. In order to get forward he must analyze his experience to find what it contains and implies and then put together the results of his analysis. He must, as Descartes put it, analyze the complex data into the simplest attainable, begin with the simplest and most obvious, proceed step by step and make sure that nothing has been omitted. Intellectual analysis of the data, inductive generalization therefrom, and deductive synthesis checked up by further analysis of data—such are the elements of genuine intellectual procedure in every field. And such are the elements of philosophical method. The only important difference between science and metaphysics, with regard to method and scope, is this—metaphysics is an analysis of the widest or most general inductions of experience and a synthesis of these into a coherent system of thought, whereas a special science limits itself to an analysis and synthesis of some particular aspect of experience, such as measurable, ponderable and experimentable physical qualities, or the phenomena of living matter, or the social behavior of human beings.

In the metaphysical analysis of experience the problem of knowledge has come, in modern times, to occupy a central and determining place. The rapid change and increase in special scientific theory of nature and man, in sharp contrast and often in

contradiction with man's naïve and traditional beliefs in regard to his own nature, vocation and destiny, has made the problem of truth an acute and critical one for the determination of man's place in the universe. Consequently I shall approach the other main problems of metaphysics through the problem of knowledge. It is impossible to progress rationally in the consideration of the nature of personality and values, and their place in the world order, and with the problem of the structure and the meaning of reality as a whole without settling accounts with the problem of knowledge. On the other hand knowledge is only one function of personality. In the actual movement of reflective life it is interwoven with feelings and valuations, with impulses and volitions. The world that I must start with is the world of my own experience. But I do not reflect this world passively as a colorless knower, or even actively grind it into categories like a logical machine. I feel its sting and sweetness, I react to its impacts and solicitations at the same time that I try to understand it. No theory of man's nature and his place in reality can be adequate which treats these various aspects of the concrete and living movement of individual experience in isolation from one another, or which elevates one aspect to a privileged position by ignoring the others. I shall, perforce, for purposes of discussion, have to isolate knowledge, valuation, and volition. But the reader is asked to bear in mind that this is an artificial isolation for purposes of investigation.

Experience, as the primary datum of metaphysics, is always *individual—yours* or *mine*. The individual's experience is the window through which he views reality, or perhaps better, the point at which reality acts on him and he reacts on it. Whatever conclusion one may reach as to the dependence of the individual experient and agent on the world (inclusive of the physical order and other selves) can be valid only if it takes account of the individuated character of experience.

There are various ways of approach to the central problems of metaphysics. One might begin from any of the starting points aforementioned. One might begin with the ultimate problems of the physical order and of natural science (metaphysics of nature), or of the mental order and psychology (metaphysics of psychology), or of ethics, æsthetics and religion (metaphysics of values), or of the place of knowledge in reality (epistemology). I have chosen to begin with the latter problems, to proceed from them to the prob-

lems of the general structure of the physical order, then to the problems of self and of values, or metaphysics of personality and of society, concluding with the problems of general metaphysics or cosmology, that is, of the meaning of reality as a whole. I have dealt with the problems of the philosophy of nature, i.e., of the metaphysics of physics and biology, only as incidental to the carrying out of my purpose. I have not aimed at a complete treatment of all metaphysical questions. My aim is rather to discuss the main problems and theories in the light of the central problems of personality and values.

I have described the aim of metaphysics to be the attainment of a synthetic or synoptic interpretation of the meaning of experience in its wholeness. To me the classical tradition in philosophy is essentially right in regarding the heart of philosophy to be the striving for a coherent and adequate conception of reality as a whole. And such a conception is to be attained by the analytical interrogation of all the main aspects of human experience and the synthetic organization into a coherent conception of the results of analysis. I do not pretend to any acquaintance with a reality that may exist as such, apart and entirely different from our human world. The only world concerning which I have any knowledge is the world of experience that is revealed *to* and *in* human selves. This world is what it is through the reactions of selves to the common physical conditions of their existence. As an individual self I am constrained to recognize that my experience, both active and passive, is conditioned by qualities of which I must take account. These qualities are physical. Moreover, inasmuch as I am a social being, one who experiences and acts only as a member of a community of selves, I am led to recognize that physical qualities are objective to the community no less than to me as an individual. But human feelings and strivings, human values and purposes, human thoughts and human acts, are just as real parts of the world of experience as are physical qualities. I hold, therefore, that no philosophical account of the world is complete which ignores the problems of the meaning and place in reality of human values and purposes, human thoughts and acts. The central problem of philosophy or metaphysics, the one problem into which all other problems merge, is the nature of human personality and its place in the universe.

The above conception of the function and method of systematic philosophy is contested by some members of a vigorous and impor-

tant school of present day thought—the new realists. The writers of this school by no means agree among themselves. I shall take Mr. Bertrand Russell as the most vigorous and interesting exponent of the neorealistic conception. His views are clearly expressed in his books—*Mysticism and Logic* and *Our Knowledge of the External World.*[1] Mr. Russell holds that philosophy has gone astray hitherto by attempting to find satisfaction for human desires, by seeking to show that human values have some standing in the universe; in other words by seeking a cosmical justification of man's longing for the satisfaction of his desires for happiness and for some lasting good. This philosophical attitude he calls mysticism. It has resulted in repeated and vain attempts at synthetic views of reality, in "large untested generalities recommended only by a certain appeal to the imagination." Mr. Russell would banish the problem of values from philosophy. The latter must become *ethically neutral;* must dissociate itself entirely from ethics and religion, and align itself with the standpoint and method of science. The only fruitful method for philosophy is the logical analysis of familiar but complex things. Let it have done with the vain question as to the nature of reality as a whole and confine itself to the logical analysis of such problems as the nature of thought, of judgment, belief and inference, in the abstract, and the nature of our knowledge of the external world. Philosophy is identical with Logic, *"the science of the possible."* It is concerned only with the universal propositions of abstract or symbolic logic, with logical forms and their relations. Logic, says Mr. Russell, consists of two parts. "The first part investigates what propositions are and what forms they may have; the second part consists of certain supremely general propositions, which assert the truth of all propositions of certain forms." [2]

In reply I would point out that while philosophy begins with analysis—the analysis of human experience in its most general aspects—its goal is a rational synthesis. I contest the view that the special sciences are purely analytical. They begin with the analysis of special aspects of the empirical world. But synthesis goes hand in hand with analysis, in science no less than in philosophy. The aim of biology, physics or chemistry is, by patient

[1] See especially Lectures i and ii in *Our Knowledge of the External World,* and the Essays entitled "Mysticism and Logic," and "On Scientific Method in Philosophy."

[2] *Our Knowledge of the External World,* p. 57.

analysis, to arrive at some wide-reaching generalization which organizes into a coherent system the facts discovered by analysis. The synthesis may not be final; it may require revision, but it is a fruitful and stimulating instrument for further inquiry no less than it is a systematic comprehension of already ascertained facts. Where would biology be to-day without the principle of natural selection or of adaptation? Where would physics be without the principle of gravitation or of the conservation of energy? Or chemistry without the periodic law? Is not Einstein's theory of relativity a vast synthesis which is provoking fresh analyses? The progress of every special science involves partial and provisional syntheses. Philosophy or metaphysics is the endeavor after a comprehensive synthesis.

Philosophy is not the science of the possible, it is *the science of the real,* that is of the actual and the ideal in their relations. For ideas and ideals are real; values and purposes are real and efficacious. Man's social, ethical, affectional, æsthetic and religious valuations are just as good facts, in the empirical sense, as are inertia, electricity, or light in the physical order; and the former order of facts plays an even larger rôle in human life than the latter. Any procedure which would rule out from the court of philosophy the consideration of personal life and its values is very one-sided. Indeed, all the sciences, in their origin and development, are the products of the human quest for the satisfaction of values. Mathematics and physics, no less than art, poetry and religion, result from man's insatiable desire to realize his spiritual life by attuning his personality to the order of the universe. Even Mr. Russell proclaims the joyous satisfactions of creating and contemplating the beautiful realm of clear and distinct, well-ordered, precise, and eternally stable logical entities, in contrast with the heartless and confused world of brute matter. His science of the possible, like the world of the musician, affords his spirit a refuge from this troubled empirical world. It is the creation of a unique and gifted spirit. It satisfies a desire which is caviar to the general. He is a logical mystic.

If man and his values are utterly incongruous with the nature of the universe, as Mr. Russell maintains,[3] we are indeed in a paradoxical situation. Man is that part of nature, that focus in the natural order, in which the creative energies of nature "come

[3] See "The Free Man's Worship" in *Mysticism and Logic.*

alive," as Mr. Bosanquet puts it. In man nature or the universe comes to valuing and purposive consciousness; in man nature attains to effective and significant individuality. How then can man be an utter alien, a homeless excrescence, an unaccountable eruption, in the universe which has borne him? Either human nature in its totality is a genuine key to the nature of things, or the universe is cut in two with a hatchet. In the present work it will be maintained that human experience means a dynamic and fruitful intercourse between man and the world, that reality acquires meaning and value in his life, and conversely, that meaning and value inhere in reality. In order to be just to the full meaning of human experience microscopic analysis must be taken up into an imaginative synthesis. The philosopher is required to be ethically neutral in the sense of being as objective and open-minded as possible. But experience is not neutral; and as for a neutral thinker—"there is no such animal," not even Mr. Bertrand Russell.

APPENDIX

PHENOMENOLOGY AS THE SCIENCE OF PURE CONSCIOUSNESS

Professor Edmund Husserl, in a series of works,[4] claims to lay the foundation of philosophy as a strict science and, for the first time, to formulate the methods and map out the way by which alone philosophy can proceed on the certain path of science. In view of this claim (which recalls Kant's similar claim) and of the acute elaboration and voluminousness of Husserl's work (the works enumerated total nearly fourteen hundred large octavo pages), it seems desirable to take some account of it here. Besides his own immediate disciples and collaborators, Husserl has influenced the psychologists, Th. Lipps and O. Külpe and his school,[5] as well as a number of other philosophers and psychologists.

[4] *Logische Untersuchungen*, second revised edition, *Erster Band und Zweiter Band, i Teil*, 1913; *Zweiter Band, ii Teil*, 1921: *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie* in *Jahrbuch für Philosophie und phänomenologische Forschung* (edited by Husserl in coöperation with M. Geiger, A. Pfänder, A. Reinach and M. Scheler), *Erster Band, Teil i*, 1913, also *Sonderabdruck*, 1913; and *Philosophie als strenge Wissenschaft*, in *Logos*, Vol. I.

[5] *Cf.* the brief but remarkably thorough survey of this psychological movement by E. B. Titchener in the *American Journal of Psychology*, Vol. 33, No. i, pp. 43–84. The whole movement has its source in Franz Brentano, *Psychologie vom empirischen Standpunkte, Band* i, 1874. Titchener calls it, happily, "The Psychology of Act."

Husserl opens his *Logische Untersuchungen*[6] with a vigorous and effective polemic against "Psychologism," by which is meant the standpoint of those who would ground the validity of logical principles solely on the mental processes of human beings. This attitude, argues Husserl, reduces all science to mere subjective empirical probability and does not afford even a mathematical foundation for a theory of probability. Pure logic is the exposition of the *essences* or universal *forms* that every theoretical science necessarily possesses. Thus pure logic is the purely formal (eidetic) science which deals with the a priori forms which are the ideal presuppositions of all possible science. But it is *not* methodology; it is not concerned with the ideal conditions of the empirical sciences. It deals with the "universals" or "meanings" of pure thought. It is the "theory of theories" or theory of knowledge. *The objects of thought,* whether actually embodied as are the objects of physical or psychological science, or ideal as are the objects of mathematics or ethical valuation, *have a being or validity independent of empirically conditioned psychical processes.* Thus Husserl opposes *à outrance* all forms of subjectivism, mentalism or "phenomenalism" in the usual sense of the latter term.[7] Husserl's epistemological standpoint has some affinities with the American and English Neo-realists, although I should expect his metaphysical standpoint to be quite different. There is even more affinity between Husserl and Meinong's *Gegenstandstheorie.*

Husserl's conception of phenomenology is radically different from that of Hegel. The latter is a culture-psychological interpretation of the development of mind, in which the epochs in the historical development of culture are interwoven with the theory of the development of the individual mind. In Hegel's own terms, the meaning of "subjective mind" is interpreted in terms of "objective mind" (social mind). Phenomenology, for Husserl, is the purely descriptive analysis of vital experience (*Erlebniss*) from the standpoint of *consciousness in general or pure consciousness.* Husserl uniformly uses the term *Erlebniss* rather than *Erfahrung;* I suppose since the latter term, like its English equivalent, is empiristic and even sensationalistic in implication; it might be "neutral," that is, not imply a subject; as indeed it does not in Avenarius, James and the neutral monists who follow him (B. Russell is now to be counted among the

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[6] Hereafter the *Logische Untersuchungen* will be referred to as *L. U.* and the *Ideen zu einer reinen Phänomenologie* as *Ideen.*

[7] M. Scheler has, in the *Jahrbuch, Bände* i and ii, a very fine treatment of the problems of ethics—*Der Formalismus in der Ethik und die Materiale Wertethik;* A. Pfänder in *Band iv* a fine treatment of *logic.*

neutral monists; see his *Analysis of Mind*). The distinction between the popular sense of experience and the phenomenological sense is that in the popular mind experience is not psychical, says Husserl. While, for sake of brevity, I shall translate *"Erlebniss"* by "Experience," let it be borne in mind that Husserl means by it "vital experience," "consciousness" and that, for him, this implies always a subject or "pure ego." The relation between the subject of experience and the empirical self or personality has not, thus far, been discussed fully by Husserl. I imagine he would be prepared to say that the self has some sort of enduring reality. I base this surmise on certain remarks *inter alia* in the *Ideen*. While in the *L. U.* Husserl rejected the pure ego as a superfluity and regarded the phenomenological ego as nothing more than the experienced interconnections in the content of consciousness or empirical unity of consciousness, in the *Ideen* he accepts the pure ego as the implicate of all acts. The world has a presumptive reality, the ego has absolute reality (*Ideen*, p. 86). By itself the ego is indescribable; nevertheless it is present in every mental act. But, at the start, phenomonology can leave the ego out of consideration and begin with the fundamental fact that "every experience of the stream (of consciousness), that the reflective look may probe into, has its own unique essence which can be intuitively apprehended, a content that can be regarded in its own uniqueness."

The method of phenomenology is "immanent inspection," the contemplation of essence (*Wesenerschauung*); it apprehends and analyzes the data of consciousness by *reflective intuition;* it is the universal *eidetic* science, the science of the forms or essences of pure consciousness as revealed by an analysis of the *acts* of the ego. Phenomenology brackets (*einklammert*) all empirical data and the special sciences which deal therewith. It is not concerned with the transcendent or metaphysical reality of the physical or psychical or their relations. *It deals with the immediate and immanent data of pure consciousness.* Like geometry, in the special field of space relations, phenomenology, as the universal science of thought-forms, cares not for "existents"; its concern is with *essences* alone.

Starting from the naïve world view phenomenology reduces or brackets, by elimination (*Auschaltung*), the specific individuations of particular fields of experience and thought, even of mathematics; what is left is the "absolute or transcendental consciousness" which is not an empirical reality. Phenomenology describes the essences or universal forms and connections of *pure consciousness.* In so doing it makes use of the eliminated elements as examples, but without reference to their "reality." Thus it is not concerned with the ques-

tion of the ultimate nature of physical things, animal life, or the empirical self or with the metaphysical status of values. It abstracts from the fact that consciousness inhabits animal bodies which are in interaction with other bodies. It takes account only of phenomenal time and space, that is, of time and space as forms of consciousness. It does not, of course, deny that there are cosmic time and space; but the problem of the relation between phenomenal and cosmic or objective time and space belongs to metaphysics, just as do the problems of the nature of the physical world and the relation of the physical, the psychical and the value realms. Phenomenology is logically preliminary to the special sciences as well as to logic, to the philosophy of values and of culture, and of course, to metaphysics. Husserl means, by the assertion that phenomenology is the indispensable precondition of philosophy as a science, that its thorough descriptive analysis must precede all theory of science, ethics, metaphysics and the philosophy of culture (philosophies of the state, religion, art, etc.). With especial reference to metaphysics the following statement is significant: "The world is never experienced by the thinker. Experience is *that which means the world;* the world itself is the intended object" (*L. U.,* Vol. II, Chap. 2, p. 387). "Consciousness *means beyond* the actually experienced" (*op. cit.,* p. 41). "The thing transcends perception" (*Ideen,* p. 75). "There is a fundamental difference between being as *experience* and being as *thing*" (*Ideen,* p. 75). The external object is not immanent in consciousness. What exist in experience are *nuances, adumbrations* or *modifications* (*Abschattungen*) of an object. This is true whether the object be perceived or imagined. If I perceive or imagine my desk; in either case, there are an indefinite number of possible nuances or adumbrations, in which I, or some other person, might see it. The actual percepts or images are nuances of the real object ("real" in the phenomenological sense); but the object does not differ entirely from its nuances. In every fulfillment of intention or meaning there is a *becoming intuited* (*Veranschaulichung*) (*L. U.,* Vol. II, Chap. 2, p. 65). "Every perception and imagination is a web of partial intentions fused into a unity of total intention. The correlate of the latter is the thing" (*L. U.,* Vol. II, Chap. 2, p. 41). (In this respect Husserl's doctrine is very like that of the present writer.) This principle holds true, whatever be the character of the thing which is apprehended in or through its nuances (*Abschattungen*). We must beware of supposing that the nuances "appear"; they do not appear, as though they were phenomena of something entirely different behind them. "The thing-appearance is not the appearing thing. . . . The appearances do not appear; they are experienced" (*L. U.,* Vol. II,

Chap. 1, p. 350); in them, thus far, the thing is experienced. This is an expressly, almost naïvely, realistic doctrine.

In the phenomenological analysis of experience the fundamental distinction is that of the *act* (*Akt*), *matter* or *meaning-content* (*Bedeutungsgehalt*) and "object" (*Gegenstand*).[8] The act is always *intentional;* alike in cognition, valuation and practical activity. The act varies in *quality;* one can *think, represent, imagine, assert,* etc., the same thing. The act *means* or *intends* the "object," whether theoretical or practical; and it means the "object" through the content. "Object" is the name for the essential connections (*Wesenszusammenhänge*) of consciousness (*Ideen,* p. 302). In perception, for example, the percept is not the act; it is meaning-determining but not meaning-containing (*L. U.,* Vol. II, Chap. 2, p. 15). The act of knowledge is grounded on the act of perception. Significance lies in meaning. There is a distinction between *immanent* and *transcendent* acts. In immanent *acts* (that is, in self-observation or introspective analysis of one's own states) the intentional objects belong to the same stream of experience as the act. In transcendent acts, as when I interpret the inner life of another self or a physical event, the act is transcendent since the object transcends my experience-stream.

In short, consciousness is always *of* something. In the "of" is contained (1) the *act of* being conscious; (2) the *"object" of which consciousness is;* and (3) the *significant content through which* one is conscious of the object.

In the case of experience of things other than the experient's own inner states, the distinction between the three moments of intentional, that is, meaning-directed, consciousness is clear and obvious. In the case of inner experiences it is not always clear, since the content and the "object" here coincide more closely; although not completely, since the very intuitive "look within" or introspection discovers a distinction. Moreover, we can *mean* the same inner experience or attitude, the same image valuation volition or affection, by different contents. I may, at different times, purpose or affirm the same values in different psychical settings, with varying nuances. Husserl holds that even the same sensation-content can be apprehended differently (*L. U.,* Vol. II, Chap. 2, p. 381). An act does not, he explicitly says, imply an activity of the *ego.* The term is not to be taken in the Aristotelian or scholastic sense of *actus.* From *act* the thought of activation is absolutely excluded (*L. U.,* Vol. II, Chap. 21, p. 379). But he speaks very often as though the act were the expression of psychical activity. I think the term "act" is an unfortunate one.

[8] Wherever object is in quotation marks herein it is the translation of *Gegenstand.*

"Attitude" seems to me a much less misleading term. I would assent to the doctrine that every cognitive process, including fancy and imagination, as well as every affection valuation or volition, whether having external reference or not, is an attitude of the ego. In some of its attitudes the ego is passive.

Husserl holds that there are intentional "feelings" or "affects," but also that there are nonintentional feelings. The latter he prefers to call affective sensations (*Gefühlsempfindungen*) in contrast with affective acts (*Gefühlsakte*) (*L. U.*, Vol. II, Chap. 1, pp. 389 ff.). That not all experiences are intentional is shown by an examination of sensations and sensation-complexes. For example, the parts of my present visual field, though components of my experience, are not intended by me as such. They are not present *as such* in my consciousness. He doubts whether even every psychical phenomenon is an "object" of inner consciousness. In all cases the truly immanent contents that belong to real constituents of the intentional experience are not *"intentional."* They are the constitutive factors of the act, but not the "object" presented in the act; for example, I do not see color sensation but colored things. When I make appreciations of my own feelings or attitudes, I do not feel feelings of worth or unworth; I estimate definite concrete states of consciousness. Husserl insists that, if self-observation be impossible, psychology is impossible. Psychology deals with data of inner experience in their concrete varied empirical forms; whereas phenomenology deals with their essential and universal connections, with the "forms" or laws of inward-directed experience as well as of outward-directed experience. Phenomenology encompasses the whole natural world and all the ideal worlds (of mathematics, logic, value- and culture-sciences) as "world-meaning" through their essential characters of order (*Ideen,* pp. 302, 303).

Husserl, in the *Ideen,* Section II, treats, at some length, the general problem of the relation of Reason and Reality. This subject also receives some treatment in the *L. U.*, Vol. II, Chap. 2. An intentional "object," or object as meant, is called in the *Ideen* a *noema.* The content of a noema is its "sense" or meaning (*Sinn*). The act of reason is called a *noesis.* The distinction is made between assertory and apodictic evidence and insight. The basis of truth is taken to be "originary givenness" (*originäre Gegebenheit*), the assertoric *seeing* or *insight.* All necessity or apodicity in judgments is made to rest, in the last analysis, on the originary intuition or insight. Mediate or synthetic judgments rest on immediate or reflectively intuited judgments.

Husserl has not yet discussed in detail the logic of inference, nor

has he indicated whether, and, if so, how, he would formulate a conception of reality as a whole in the metaphysical sense; but it seems evident, from the general drift of his discussion, as well as from specific remarks, that whatever has reality must be a possible "object" (*Gegenstand*) of conscious meaning. The most natural metaphysical implication of his theory would be an objective idealism. The world of things and events presupposes consciousness; its being is the fulfillment of the meanings of consciousness. Royce's doctrine that reality is the complete fulfillment of the internal meanings of ideas would fit into Husserl's theory.

The whole procedure of phenomenology is reflectively *intuitive*. There is no use made of induction, except in the sense of the use of examples to illustrate or body forth intuitive insights; neither dialectic reasoning nor the method of deductive coherence is employed. The "principle of principles" is this—"Every originary dator intuition is a justificatory source of knowledge, and everything in the intuition which offers itself as originary (so to speak in its *bodily reality*) is simply to be accepted as it presents itself, but only within the limits in which it presents itself. This no conceivable theory can make us doubt" (*Ideen,* pp. 43, 44). We must *see* the essential natures and connections or forms, just as we see that $2 + 1 = 1 + 2$. "Seeing in general, as the originary dator consciousness of whatever kind, is the final justificatory source (*Rechtsquelle*) of all rational assertion" (*Ideen,* p. 36).

There are three serious difficulties in the reading of Husserl, quite apart from the difficulty, to which he himself frequently alludes, encountered in so thorough and profound an investigation. The first is the coining of new terminology. (This is not a criticism.) The second is the overelaboration and repetition, sometimes from somewhat different angles and sometimes without obvious reasons, of points of doctrine; Husserl runs at times into a confusing verbalism.[9] The third is that the various partial investigations, covering nearly 1400 printed pages, are nowhere focused together; the work shows a lack of synthesis or organization. I suppose Husserl would say this difficulty is unavoidable in laying the first foundations of a scientific philosophy. On the subjects of "Expression and Meaning," "The Ideal Unity of Species," "The Doctrine of Whole and Part," and other subjects, the *Logische Untersuchungen* contains very valuable discussions. I cannot quite see, however, that Husserl has founded a new science which is the exclusive forecourt of philosophy. I think

[9] Dr. A. R. Chandler's criticism on this score is fully deserved. *Cf.* his excellent article—"Professor Husserl's Program of Philosophic Reform," *Philosophical Review,* Vol. xxvi (1917), pp. 634–648.

he has made some very important contributions to a descriptive analytic psychology of knowledge and, thus, to logic. The question whether his procedure is to be called a descriptive psychology of mental forms or phenomenology seems to me purely terminological. In any case it contributes important prolegomena to logic. I agree with Bosanquet's criticism (*Implication and Linear Reference,* Chap. VII) that Husserl's complete separation of Logic from Psychology leads, in principle, to the same divorce of thought and reality to which psychologism leads. It is doubtless worth while to regard the knowing and other "intentional" processes in the formal-analytic manner, by abstraction from, by a "bracketing" of, the concrete details and problems of the existential sciences. But phenomenology is a peculiarly "abstract" way of regarding consciousness, and we must not forget its abstractions; otherwise one will be led, as Husserl is, into hair-splitting subtleties that at times get nowhere. To paraphrase Lotze, the knife is sometimes at least being sharpened to cut the empty air.

A theory of knowledge is, in effect and all along the line, a theory of the meanings of reality *in the sense of existence.* The one all-inclusive problem of philosophical system is the interpretation of existence in its most universal and self-coherent meanings. There can be omitted from the metaphysics of knowledge special details of the metaphysics of nature and the metaphysics of mind; but, "without general metaphysics no theory of knowledge," is to me a first principle in philosophy. As knowledge, experience means more than it is as fact. It transcends itself, and that very self-transcendence requires that, in the analysis of experience, we shall keep in mind both the existential order, which immediately *is* experience in its personal and cosmical interrelations, and the consistent completion of this order by way of implied principle. I do not yet see how the various isolated parts of phenomenological inquiry dovetail into a synthetic interpretation of experience as immediate reality. Nor do I see how phenomenology can become philosophy without transcending itself in a theory of reality. When it does this it seems to me that many of the phenomenological analyses will turn out to have been a rather superfluous process of overelaborated and abstruse word-technic. Philosophy cannot enter upon the sure road of science by way of phenomenological abstraction, any more than by way of dialectical legerdemain. The one sure and safe road for philosophy is to bring into intimate association, and to organize into the greatest possible coherence and unity, the main insights of the concrete sciences, practical life and human evaluation. I do not look, with eager expectancy, for a better metaphysics founded on phenomenology. We must remain content with imperfect and approximate world views; to

which, to some extent, the *personal equation* of the thinker and, to a greater extent, the *spiritual climate* of a culture-epoch contribute. At best a philosophy is the total synthetic reaction of a reflective open-minded student to the facts of common human experience as these appear in terms of the "categories," the fundamental modes of judgment of a whole culture system. The personal equation and the historical culture attitude enter even into mathematics and physics. Since the interests which the philosopher would serve and the material in which he works are much richer and more confusing than those of the physical or mathematical sciences, it is no counsel of despair, nay rather an expression of the human value of his subject, that leads a student of philosophy to recognize the inevitable incompleteness and one-sidedness of even his own philosophy and to acknowledge that he cannot think things out in a cell hermetically proof against the culture in which his spirit lives, moves and has its being.

Perhaps, however, I have done injustice to the originality of the Husserlian movement. Perhaps it will issue in a truly scientific philosophy. It may be my own stupidity which prevents me from discerning in it the primary foundations of scientific metaphysics.

BOOK I

THE THEORY OF KNOWLEDGE

CHAPTER II

WHAT IS THINKING?

One of the classical problems of modern philosophy is the question of the place of thinking in the real universe and, by consequence, since knowledge is the product of thinking, the question of the place of knowledge in reality. The name *epistemology*, meaning theory of knowledge, is given to inquiries of this sort.

Since my purpose here is systematic, and not historical, I shall make only such historical references as may be incidental to the discussion of the problem itself.

The problem is not a simple one. On analysis it breaks up into the following problems: (1) *What is thinking*, considered as the activity by which truth is achieved? (2) *What are the marks or criteria of true thinking*, or under what conditions is knowledge possible? (3) *What is the status of truth or knowledge in the order of reality*, or the relation between the knowing mind and the objects to which knowledge refers? I shall now discuss these problems in the order given.

The most elementary *act* or process of thinking is *judgment*. Judgments are expressed or symbolized in *propositions*. For example, "this room is cold" is a judgment expressed in the system of symbols which constitute a proposition in the words of the English language; "$x = y$" is a judgment expressed in a proposition consisting of algebraic symbols. I shall use the terms judgment and proposition as equivalent; since, logically, a proposition is an expressed judgment. The grammatical treatment of propositions as sentences does not concern us here.

Judgments are objective in reference. A true judgment is one that would be true for any percipient and thinker under the same conditions. This is obviously the case with judgments concerning the external world or scientific principles. But it is just as true of judgments concerning the subjective states of individuals. If it be true that I am now suffering from headache, it is true for all

thinkers in the sense that any one in my position would know it to be a fact. The objects of judgment are particular facts and factual relations or connections of particulars.

Actually, as made and held by thinkers, judgments may be false as well as true. The *meaning-content* or *objective* of a judgment is as such neither true nor false. It is simply what it is.[1] The meaning of a judgment might be called, as Meinong calls it, a "supposal." One can entertain meanings or ideas without taking any attitude towards their truth or falsity; in fact one can have meaningless images or impossible and contradictory notions. One can have mere ideas or presentations (*Vorstellungen*) and one can make judgments. Making a judgment is always a "Yes—No" attitude on the part of the individual making it. He either affirms a meaning directly, or he affirms a meaning indirectly by denying its contradictory. To *apprehend the meaning* of an idea is one thing; to *affirm its truth is another.*[2] A judgment, in contrast with mere apprehension, is a *belief.* Of course it is an inherent tendency of the human mind to believe every idea presented to it (this tendency Bain calls "Primitive Credulity"); still we do entertain and apprehend the meanings of ideas without assent to, or dissent from their claim to truth; indeed, it is a sure mark of the cultivated mind to be able to entertain a large company of ideas without believing in them. This raises the question, what is the distinction and relation between *judgment* and *belief?*

There is no fixed usage for the term "belief." Some writers, such as Sir William Hamilton, make a disjunction of belief and knowledge; beliefs are those propositions which are accepted as true on other grounds than empirical or rational evidence; we believe where we do not know and cannot prove. Others (and the larger number, I think) make belief the more inclusive term; in this sense, all meanings accepted or embraced are beliefs. Inasmuch as the greater part of our knowledge, so-called, consists of propositions which we believe on grounds that furnish only a

[1] I may call attention here to the important contributions to the psychology and logic of judgment and meaning made by Brentano, Meinong and Husserl in German and by Bradley, Bosanquet and Stout in English. *Cf.* also, the symposium, "The Meaning of Meaning," at the *Oxford International Congress of Philosophy* by Schiller, Russell and others. Russell's view of meaning is indicated in his *Analysis of Mind.* Schiller's paper will be found in *Mind* N. S., Vol. xxx, No. 118.

[2] Franz Brentano made this distinction very clearly in *Psychologie vom empirischen Standpunkte, Band I, Buch ii,* Chap. 7, pp. 266 ff.

greater or less degree of probability in their favor, and we have certain knowledge of but few things, I think that I am in harmony both with the prevailing usage and with the actual situation as to human knowledge in using the term *"belief" to designate the subjective or individual attitude in affirming or accepting the truth of a judgment or proposition.* Subjectively, beliefs are judgments; objectively, true beliefs are true judgments, that is, judgments whose meanings or "objectives" (in Meinong's sense) agree with the facts. A true belief is the assent of the mind to a true judgment or its dissent from a false judgment; a false belief is the assent of the mind to a false judgment or its dissent from a true judgment. Thus, for logic and theory of knowledge, the distinction between belief as a psychical attitude and the objective status of the content or meaning of the belief is most important. We must distinguish between two questions: 1. *The question of fact*—what motives actually lead individuals to believe in certain propositions, and to disbelieve in others; 2. *The question of right*—what are the objective principles or criteria to which beliefs must conform in order to be true, what really makes them true? The first question is that of the *psychology of belief,* a very interesting and important subject, into which we need not enter here; although it is worth while to indicate, summarily, the chief grounds which actually motivate human beliefs. The second question is the fundamental problem of *logic* and *epistemology;* the problem of the *criteria of truth,* which will receive fuller consideration in our fourth and subsequent chapters. The identification of the second problem with the first is "psychologism" or "subjectivism" (sometimes called "subjective idealism") in theory of knowledge. If the enumeration of the motives which actually do lead people to believe propositions be the only account that can be given of the legitimate grounds of belief, it is clear that every individual has an equally good right to believe whatever suits him and there can be no other criteria of truth than mental habit and feeling. On the other hand, since, unless we admit right off the bat the absolute authority of some divine revelation, we can only interrogate human experience in order to find objective criteria of truth, it is difficult for the logician or epistemologist to avoid falling into psychologism. As we shall see more clearly later on, the strength and weakness of pragmatism lie in its constant appeal to experience and its inability to avoid subjectivism.

David Hume is the grandfather of all modern subjectivists. He defined belief as consisting in "a lively idea related to or associated with a present impression." He says that it is chiefly the *force,* or *vivacity,* or *solidity,* or *firmness,* or *steadiness* of ideas which determine belief in them.[3] He overlooks the fact that we may have firm, forcible, vivacious, steady ideas of entities which we believe to be fictitious; and weak, vague, flickering ideas of entities which we believe to be real.

If two persons do not mean the same thing by the same proposition, they may have the same belief while thinking that they disagree, or they may disagree while thinking that they agree. The real objective or content of a belief is the meaning of the proposition. What meaning *means* will engage our attention frequently. Suffice it to say here that it is a quality or group of qualities in relation, either existing or derived from existents (Meinong's "objects" of lower and higher order, respectively).

Belief in propositions may be based on one or more of the following motives: (1) The influence of tradition and social suggestion. Man is a highly suggestible, and therefore credulous, animal. Many of our beliefs are based simply on the authority of institutions or persons or on mass suggestion. The family, the church, our associates, prominent and influential persons, or the opinion of the majority, determine us to believe certain things. It is the line of least resistance so to do. It is difficult, unpleasant, sometimes dangerous, not to do so. (2) The desire to believe, "the will to believe," because the belief in question yields or promises to yield personal satisfaction; it promotes some end, satisfies some desire, holds out the inducement of personal profit or social good. (Pragmatists have made the most of this motive as the criterion of truth.) (3) The self-evidence of experience or inference therefrom. I believe in the reality of my physical surroundings, because I see and touch things; I believe in the multiplication table, because I see its truth with the eye of the mind. (4) The coherence or harmony of the belief in question with already accepted beliefs; consistency or system in believing. Epistemology, the logic of belief, is concerned to weigh and estimate all these motives as logical grounds for believing. To enter upon this subject here

[3] *Cf. Treatise of Human Nature,* Part iii, Par. 7.

would be to anticipate the work of many of the following chapters.[4] I proceed with the subject of the nature of judgment.

What then is judgment? Firstly, a judgment is always *the affirmation* or *denial of a relation* between a subject and a predicate, a "that" and a "what." In the example "this room is cold" the "that" or subject is "this room," the "what" or predicate is "cold"; the relation affirmed is that coldness is a quality of this room, that is, in some way belongs to or inheres in "this room." A negatively expressed judgment, be it noted, is always expressly the denial that a specific relation holds between subject and predicate and, by implication, the affirmation that the opposite or contradictory predicate inheres in the subject; for example "this room is not cold" asserts, by implication, that some other quality in the temperature order belongs to "this room."

Thus far all is plain sailing. No philosopher would disagree with the above statement. But, when we ask what are subject and predicate, what are the relations between them and how can they be related, we immediately become involved in controversy. One school, the *objective* or *absolute idealists,* aver that the *subject* of a judgment is always *reality* in some aspect, form or degree, and that judgment is the affirmation of a *meaning,* a *universal or "ideal content,"* of reality. They aver, further, that this definition implies, when thought out fully, that reality, the ultimate subject of all judgments, is a single systematic whole or organized totality best described as "universal reason" (Hegel), "absolute self" (Royce), or "absolute experience" (Bradley). Another school, the logical atomists or neo-realists,[5] aver that *terms,* that is, subjects and predicates, and *relations* have separate *existence* (or, in the case of universals and other relations, *subsistence*), and may be joined and separated like counters or marbles. *Empiricists* would agree (and where they wouldn't they should) with the objective idealists that the subject of judgment is always some fragment or aspect of reality.

Reality is the ultimate subject of all judgment. In order to avoid misunderstanding, I shall mean by "reality," *anything that*

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[4] Reference may be made to the excellent article by Alexander Mair in Hastings' *Encyclopædia of Religion and Ethics,* Vol. ii, pp. 459–464.

[5] Not all logical atomists seem to be neo-realists or *vice versa.* The logical atomists insist that logic is the essence of philosophy and they interpret logic formally.

really exists, whether in the physical world or in minds; and by a "truth," *any judgment or set of judgments, that is, any intellectual apprehension, which symbolizes or represents significantly a real existence.* In short, *reality=existence,* and *truth=thought corresponding with existence.*[6] False propositions are those which do not correspond with existence, but have coherent meanings that might so correspond. Unmeaning propositions are those that not only do not correspond, but are *positively* incompatible, with the nature of existence or reality. For example, it is false that human beings can live without eating, it is unmeaning to say that ropes can be made of sand or capital out of debts. Such propositions have the grammatical form of propositions and, as such, may be printed or uttered, but they are not logically real or *valid* propositions.

Existence or reality clearly includes physical bodies, living bodies, and minds with all their thoughts, feelings, beliefs and impulsions. Reality also *may* include other things, such as

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[6] Being, Reality, Existence and Subsistence.

The lack of agreement among philosophers in regard to the terms used by them, and the failure to define their terms, are responsible for much confusion and misunderstanding. I shall use the above terms as follows:

Being includes everything within the universe of discourse—all imaginary, absurd, and impossible objects of discourse, such as round squares, ropes of sand, capital made up of debts, dead live men, virtuous rocks, vicious mathematical formulae, as well as all real objects. Since Parmenides there has been much puzzlement as to how non-being can be thought. Plato asked, "How can one think that which is not?" and said that non-being must have being if it can be known. (See especially the Theaetetus and the Sophist). Hegel said that non-being and being are one and the same. This means, I take it, that neither non-being, nor being in general or in the abstract, mean anything at all. *Non-being,* or *that which is not,* unless specified, is utterly meaningless; and *being,* or *that which is,* must be always something definite. All *real being is determinate* or *specific.* Impossible and imaginary objects of thought have mental and psychical being (in minds which think them and on printed pages) but not real existence. In other words we can form images and ideas of non-existent and impossible objects; for example: an image of a man made of green cheese or a round square.

Existence includes whatever *really is.* I shall use *existence* and *reality* as synonymous, and as including all sorts of *determinately real beings.*

Subsistence. Truths, that is, true judgments and propositions, *subsist,* or are *valid.* They do not exist, for they are the *relations which obtain* between existent minds knowing and objects known, when minds correctly apprehend the nature of other existents, including their own existence as objects of thought and their relations to one another. (It will be noted that I hold that the *nature* of any determinate existent or individual is affected by and affects its *relations* to other existents. This doctrine will be argued later.) By saying that truth or truths subsist I imply a *relational conception of truth. There would be no truths if there were no minds to know.*

See Leighton, "The Objects of Knowledge," in *The Philosophical Review,* Vol. xvi (1907), pp. 577–587.

electrons and disembodied spirits, and all particular existents may be embraced in one all-inclusive existence or absolute reality. We are not now concerned with the question, what existence or reality includes. Every judgment, that is seriously meant, has for its subject some fragment or aspect of reality; and every judgment affirms (or denies, and thus implicitly affirms) that the fragment or aspect of reality which is its subject is qualified by, or in some way connected with, some other fragment or aspect of reality. Thus the thinker, in making a judgment, affirms that he has apprehended *the meaning of a relation between existential data or facts. To apprehend and comprehend facts in relation is the whole business of thinking as such* (the psychical *motives* which impel to thinking is another question); *and the relation, if correctly apprehended, is a constituent of the whole fact* as apprehended and comprehended. No one seriously and persistently thinks about rocks, or birds, or triangles, or the principles of logic, unless he holds that, in so doing, the subjects of his thinking and the relations of these subjects really obtain in, or validly signify some aspect of, the realm of existence or real being.

Every subject of judgment is believed to exist, either as a bit of sense experience, of internal experience (feeling and reflection), or to be a valid inference or construction from experience. The implicit or explicit subject of judgment is always *experience, actual* and *possible,* either in its particular and specific qualities or in its universal relations, meanings and values.

The work of thought, starting from some item of experience, is to reconstruct it by setting it in a larger context, to find its meanings; that is, *to see it in relation to other items of experience. Relations* or *universals,* as thought of, are the carriers of all the meanings and values of experience for the experiencing self; and, as existing, are the interconnections of items of experience, by which their meanings and values are sustained and enhanced.

Thinking functions in the organization and reorganization of experience, which is at once a process of *interpretation* and of *reconstruction,* through interpretation.

The operation of thinking has two *aspects* or *phases:* (1) *analysis* or taking apart and (2) *synthesis* or putting together. The first step in thinking is judgment. Merely to have an experience, such as to see a light or color or feel warm is not thinking. It is mere ideation. But if one say, "Behold, the sunlight," "That

is red," or "I feel warm," these are judgments, and thinking has then begun. "Horse" is a concept, not a judgment, but "there are horses" is a judgment. It has been proposed to distinguish between *simple apprehension* and *judgment,* the former being mere awareness of an experience. The terms are, perhaps, ill chosen, since to apprehend mentally is to think. The distinction is between simply *experiencing,* or being sentient (which I take to include having images or ideas floating in the mind when in a state of reverie or day dreaming), as well to have sensuous feelings, and *thinking the experience.* As soon as one thinks one employs *universals.* There can be no thinking without universals. In such cases as "The pencil is here," "here" is a *universal, a meaning. Analysis* is the process of discrimination by which universals are recognized; and *synthesis,* the process by which universals are seen to be the connecting principles of things. (By "thing," in the present connection, I always mean a determinate item of experience.) A simple qualitative *likeness,* such as color or breadth, is a universal, and a likeness cannot be recognized without recognition of unlikeness. Recognition of *qualitative likeness* and *unlikeness* or *difference;* of *numerical identity* and *diversity;* of *more* and *less* of the *same kind* in *number, magnitude* and *intensity;* of *identity* and *diversity* in *meanings* and *universals;* of a *regular order* or *causal sequence* in change—such are some of the elementary ways in which thinking, as at once analytic and synthetic, operates in the *ordering* of experience. *To think* is *to relate* or *order,* to relate is to synthesize, but to relate is equally to have discriminated or analyzed. For items of experience, whether percepts, images or concepts, as subjects of thought, have significant differences only in so far as they have also significant likenesses, and vice versa. We neither compare nor separate $\sqrt{2}$ and the flavor of champagne because, there being nothing common to them, there is nothing significantly different between them.

An inference is a combination of judgments. It is the attribution of a universal to a subject, through the mediation of another universal. We are not here concerned with the logical problem of inference, which is the problem as to how from one universal we have a right to pass to another; beyond saying that there must be some *identical* quality in the universals, if the inference is to be valid; the two universals must be grounded in a wider universal. For example: "Roses are plants; plants are perishable; therefore,

roses are perishable"; means that perishableness is common at least to roses and other plants, and possibly to other things.

The function of thought then is the interpretation of experience in terms of universals; and, through this interpretation, *the organization* or *ordering* of *the data of experience into a more systematic whole of meaning,* in order *to arrive at a self-coherent view of things,* a *harmonious system of meanings,* which can be used and enjoyed by selves—one that will work in practice and be emotionally satisfying since it grows out of experience, and, being logically consistent with it, reveals and enhances the significance of the empirical order. And *experience* is to be understood here in the most liberal sense—to include the facts of sense perception, of moral experience, of interpersonal affection, æsthetic intuition and religious feeling. The interpretative and organizing function of thought is relevant to the understanding and coördination of all these types of experience into more inclusive orders.

The chief *forms* or *categorical ways* in which thought functions in organizing experience are: *qualitative likeness* and *unlikeness,* or *sameness* and *difference; numerical identity* and *diversity, unity* and *plurality;*[7] *intensive* and *extensive magnitude* (*greater, less* and *equal* in degrees of the same quality); *temporal sequence* (*before, after* and *simultaneous with*); *causal order, purposive order, individuality* and *totality.* We shall not discuss here the metaphysical significance of these categories,[8] but it is in place to point out briefly how they operate in the organization of experience.

Likeness and *unlikeness* are first discerned and employed on the merely *qualitative* level, that is, before the mind has learned to formulate and employ, in the field of perception, quantitative units and measurements. The primary elements of knowledge are *things,* that is, complexes of sensory qualities. Like things are complexes of qualities in which the significant or important likenesses in qualities seem to overbalance the differences. Of course whether things are classified as like or unlike, the same or different

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[7] The two latter pairs are built up by a clearer thought-development out of the primitive and vague recognition of likeness and unlikeness; a thing is *identical* with, because *wholly like, itself;* things are *different* because the unlikenesses exceed the likenesses or at least prevent the recognition of sameness; a *unit* is a *thing* that is wholly self-identical; a *plurality* is a collection or series of units.

[8] See Book ii.

in kind, is a matter of *degree and relative to the interests and purposes of the classifiers.* If a herdsman is counting up all his live stock, pigs, goats, sheep, cattle and horses are alike in that they are all live stock; if he is trading goats for horses, goats and horses are different. The recognition of *degrees* of *intensity* and *magnitude,* in the same quality or in similar things, is the next step, and it marks the beginning of *measurement through number, spatial extent* and *weight;* one horse is swifter than another, one pig is bigger and contains more pork than another. Thus there arises the notion of a *unit* of *quality,* which is contained in a given thing or collection of things a specific number of times; for example, coldnesses and warmths, brightnesses, lengths, breadths, thicknesses, weights, rates of movement. *Measurement* is, in all cases, dependent upon the recognition of a *unit of quality;* even in the measurement of merely extensive magnitude, for instance the dimensions of a lumber pile, it is the containing of a qualitative unit, that is a unit of spatial extent that is in question. The concept of *number* is the simplest and clearest illustration of the way in which the mind builds up, from its vague primitive notions of individuality, likeness and unlikeness, relation and order, a systematic scheme of thought. The original of the notion of arithmetical unity is undoubtedly the empirical intuition of individuals or particulars with determinate characters. Counting begins with things that, for *practical purposes,* are units; the individual man and his digits; other human individuals, animals, and other natural objects. These are classified by important resemblances into *classes* and *groups,* and then *indexed* or *systematized.* A *class* is a repetition of like units. A *group* is a system or order of units, regarded as interrelated and thus constituting a whole. It is a one-in-many or many-in-one. The fact that we can only count individuals, classify them, and arrange them into groups, by a process involving a temporal sequence gives rise to the *notion of order.*

A collection or a group of simultaneously existing things, whether concrete things or the properties of space, is a *reversible order,* whereas *a causal sequence* is an *irreversible order.* And the *principle of continuity* is primarily that of temporal persistency of likeness and identity through difference and diversity; that is, of continuity of existence through succeeding moments of time and in differing portions of space. The recognition of spatial continu-

ity is dependent on the recognition of temporal continuity. At first there is no distinction made in human thinking between *mechanical* and *purposive order.* When once this distinction arises, mechanical order becomes the clear case of reversible series and purposive order that of irreversible series of events.[9]

The mind abstracts from the empirical qualitative notions of individuality, classes, and groups the notions of *unity, repetition, class relation, group relation, order, whole part-order,* as formal concepts applicable to all sorts of natural entities or contents. Thus numerical relations become the parent types of abstract, that is, contentless categories of unity, plurality, class relation, order, whole and part. Thus the analytic-synthetic activity of thought gives rise to the notions of pure *discreteness,* natural *numbers,* and *unification* of the *discrete assemblages or groups* of numbers.

Thus, in the manner sketched above, there arise, through the activity of thought, the *primary universals,* or *categories of thinking, by which all experience is organized.* The same motives and methods of thought are at work in the herdsman counting and manipulating his live stock as in the philosopher trying to conceive and arrange in a systematic or orderly scheme the whole of empirical existence. The chief differences are the more universal sweep of the philosopher's interest and outlook and the deeper penetration of his analysis.

The *primary universals,* such as the fundamental categories and the principles of logic, are *timelessly valid meanings* which get temporal application in concrete intuitional shape in actual human knowledge; but which cannot be themselves products of mere human thinking. These timelessly valid meanings must be the structural constituents of the universe in so far as it is rational, elements in the systematic intelligibility or universal reason which is implied in the coherence of the world order. There are two kinds of universals, the *primary universals* or *fundamental categories* which are the most fundamental predicates of empirical reality. Examples of these are *likeness, unlikeness, identity, diversity, systematic unity* (identity in *difference* or *individuality* of which *selfhood* and *thinghood* are special forms); *continuity in change* (of which *substance* and *uniformity* are special forms); *causality* (which involves *continuity* and *novelty*); *end* and *sys-*

[9] For full discussion of the categorical types above enumerated see Book ii, Chaps. 10–17.

tematic totality or *wholeness* and *order* (the full meaning of unity). *Secondary universals* are general empirical predicates, intuited by us in interpreting the structure of special classes of reality or particular fact. They always involve an empirical element of sense perception or feeling, and are thus conditioned in their scope and meaning by particular fact. Examples of these are *whiteness, loudness, bitterness, painfulness, happiness, love.* In short, the secondary universals involve both particular experiences and the reaction of the thinker thereto. They arise from the interpreting activity of thought, and thus presuppose the unconscious operation of the primary categories. The question as to whether we immediately apprehend these universals seems to me a purely psychological one and unimportant for logic and metaphysics. My own view is that we do immediately apprehend them.

Empirical universals occupy a middle ground between sensory particulars and the primary categories. Thus we find an ascending scale of universality or comprehensiveness in knowledge from particular fact up the most universal and nonempirical principles employed in the organization of experience. Sensory particulars are *truths of fact,* and nonempirical universals are *truths of reason.* This distinction, however, cannot be ultimate. It represents our inability to organize completely the particulars of experience into an articulated whole or reflective intuition of meaning. Truth of bare fact and truth of reason represent respectively the beginnings and the ideal completion of the intuition of reality as a perfected system of meanings—the two ends of our knowing separated and connected by a middle region in which our thought works in its endeavor progressively to grasp reality as a living totality.

The primary universals, which constitute the meanings and grounds of all cognized relations between particulars, and which, hence, are the conditions of the grouping of objects into classes, of their organization into systematic totalities, of the correlation of events into causal orders or series, are not necessarily expressions of existential or ontological identity of the things related. If one say "the same causes are at work here and now as there and then," that does not mean *numerical identity,* but only *similarity* or *likeness.* The world consists of objects of knowledge that can be arranged in a great variety of classes, types, groups or orders, because of the great variety of qualitative and dynamic similarities which coexist or occur in successive moments of time. (Note

Royce's discussion in Ruge's *Encyclopædia of the Philosophical Sciences,* Vol. I, "Logic.") For instance, a causal law is a case of one kind of event being the *sine qua non* of another kind of event.

The fundamental postulate of thought is that the elements of the world are interrelated parts of one whole or system (universe). This postulate does not imply that these elements are really identical in stuff or nature. It implies only that the elements are, in various significant fashions, *relevant* to each other; that there are many kinds or types of similarities of quality, quantity, group or serial order or relational sequence or appreciable value between them. Reality may ultimately consist of many dynamic types of being, existing and operating in manifold types of relationships rather than one being with many differentiations internal to it. (If there be only one real being, there is no sense in speaking of it as one in kind. Kind implies at least two examples.)

I have said that thought aims to group its objects in a systematic or ordered totality of relationships. It sets before itself the task of conceiving the world of knowables in a *spatial whole* or system of reciprocally related elements, and in a *temporal whole* or continuity of dependent sequences. Its goal would be absolutely achieved if, at any moment, all the not-further-analyzable, and qualitatively unique, and numerically distinct elements of reality were grouped as a system of reciprocally dependent factors; and if the successive temporal phases of the systematic whole could be seen to imply one another as a completed series seen in a supratemporal system of relationships, *totus, teres atque rotundus.* This ideal is what Spinoza means by his knowledge *sub specie æternitatis* (seeing all things under the form of eternity), Hegel by "the absolute idea," Bradley and Bosanquet by "the principle of ground" as the logical nerve or principle of totality of the real, Royce by his "all-knower." In such a perfect insight all empirical plurality and all temporal sequences would be transformed into a system of *nontemporal relationships.* Bosanquet says that when causation is thought out, the notion of time vanishes and the principle of *causation* becomes the *principle of ground.* Thus, the logical ideal of coherence or systematic totality is converted into a metaphysical criterion of ultimate reality, and the temporal actuality of human experience is viewed as absorbed into a timeless or eternal totality of being.

I admit that all real entities or individuals, and all relationships which they sustain, must *now,* or at any other given moment of *time,* be internal to the totality of the real.[10] To say this is to say nothing more than that, in knowing, we are dealing with our data as parts of the universal order. But this admission settles nothing as to the relative degrees of independence and self-determination to be accorded to the individual members of the total reality. It settles nothing whatever as to the specific characters and degrees of the interrelationships of any two or more entities. To grasp the ground of the being of any thing, or of the occurrence of any event, is to gain an insight into the *objective system* of *relationships* or *determinate orders* in which things and events live and move and have their being. The moving spring of every effort towards the unification of knowledge is the *faith* that the world is a systematic and intelligible totality; that it is, *in some considerable degree, one orderly whole,* whose successive phases are at least partially continuous.

But to say this settles nothing as to the precise degree and manner in which the being of any real entity has its ground respectively in itself and outside itself, or as to the degree in which the successive phases of the actual behavior and qualities of anything real could be determined now if one had a complete insight into the totality of relationships in which real entities at present stand to one another and as to the degree in which successive phases of reality are discontinuous or continuous.

If time and change disappear from an interpretation of reality just in the measure in which that interpretation nears completion; if, for example, time has no place in complete causal explanation, then both mechanical-causal explanation and teleological interpretation of the world process or any bit thereof vanish or become meaningless and unreal when they reach their fruitions. In brief, if the logical ideal of knowledge is taken to involve the absolute monistic and eternalistic conception of reality as a *timeless whole or system,* of which the finite temporal individual elements are illusory and transitory differentiations, then the realm of experience, from which we set out, in which alone we live and act and have our being, and the logical activity of thought itself are illusory guides which lure us to intellectual self-annihilation.

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[10] On relations see further Book ii, Chap. 12.

Knowledge means at once the comprehension of the mutual relevancies or orderly interdependences of the many distinct existences, which make up reality, and of the uniqueness of the being of each existence. It means, at once, the interpretation of the successive phases of the actual as orderly series or continuous sequences, and the recognition of the uniqueness of each successive phase in the life of the universe or of any part thereof.

APPENDIX

EXISTENCE AND SUBSISTENCE

PHILOSOPHY AND GEGENSTANDSTHEORIE

In a series of influential works, the late Professor A. von Meinong developed what he regarded as a hitherto unworked field in Philosophy—*Gegenstandstheorie, Theory of Objects;* "Object" being used in the sense of any object of thought,[11] anything that can be mentally apprehended or intended, including actual and ideal objects, possible and impossible things. Actual things, such as chairs and tables; ideal entities, such as geometrical and numerical truths; imaginary things, such as centaurs and hippogriffs; impossible and contradictory entities, such as round squares, sand ropes—are all Gegenstände. All possible Gegenstände *subsist* (*bestehen*); one class of them exists, namely, empirical things. *Existents are temporal,* they persist in time. Pure *subsistents,* such as mathematical principles, are *timeless.* Causal relations are not relevant to pure subsistents. There is a mixed class in which the basis of the subsistent entity is empirical, and therefore temporal, existence, whereas the subsistent principle of itself is timeless; for example, if we say that a certain man resembles another man who has died, the men are temporal *existents;* whereas the resemblance is a timeless *truth.* Resemblance and difference are timeless entities. To say that the difference between red and green exists *at a certain time* has scarcely more meaning than to call a musical tone white or black. The meaning of a judgment (or of a supposal, *Annahme,* as in the case of guesses, surmises, fancies) is

[11] The most important of these writings are: *Ueber Gegenstände höherer Ordnung, Zeitschrift für Psychologie,* Vol. xxi, 1896; *Ueber Gegenstandstheorie,* in *Untersuchungen zur Gegenstandstheorie und Psychologie,* 1914. *Ueber Annahmen,* 2d Edition, 1910; and *Ueber der Stellung der Gegenstandstheorie im System der Wissenschaften,* 1907; also in the *Zeitschrift für Philosophie.*

its "objective." "Supposals" are not mere ideas or images, since a supposal always involves a tentative *yes* or *no;* as in the case of a guess, a presumption, a surmise. Meinong's discussions of *supposals* are a valuable contribution to the psychology of imagination, and *meaning,* and therefore to logic. The *objective* is the *meaning-content* (*Bedeutungsinhalt*) of the act of judgment or supposal, whereas an object (*Objekt* not *Gegenstand*), for Meinong, is always an actual reality. Thus the *objective* in any act of thought is *gegenständliche.* The meanings of judgments (and supposals) are their *Sosein,* their nature or "what." Thus many objectives have *Sosein,* but not *Sein;* they have no corresponding existents, no "thats." Meinong's distinction between *Sosein* and *Sein* or *existence* seems to be the same as our English-speaking distinction between the *"what"* and the *"that";* his *objective* is simply the *"what"* of our philosophical discourse.[12] He says that one grasps or *apprehends* a *Gegenstand* in its *Sosein* or "what"; but what one *judges* is either its *Sein* or being or its further *Sosein* in relation. *Relations* and *complexes* (which result from reflection upon primary objects of thought) are *Gegenstände höherer Ordnung*—"objects" (in his technical sense) "of higher order." If a superior is necessarily based on an inferior it is "founded" (*fundiert*) on the latter. All objects of knowledge are factual (*thatsächlich*) objectives or *facts.* The term *fact* is to be applied not only to empirical existents but to all valid propositions; for example, to those of mathematics. All facts are known through *evidence,* which may be either rational (*a priori*) or empirical (*a posteriori*). All empirical fact is temporally existent. All rational fact is timelessly subsistent. Whatever can exist must also subsist; it gains existence when it becomes temporal fact; for example, until recently a dirigible airship had only subsistent being; now it exists. Contradictory and impossible "objects" (Gegenstände) have an extra-existential subsistence (*Aussersein*). There are objects that are not (*Es gibt Gegenstände das nicht sind*); for example, a round square or a *perpetuum mobile.*

Metaphysics, as Meinong conceives its province, is the most comprehensive science of empirical existence. It deals with the general characters and interrelationships of empirical and temporal reality. *Gegenstandstheorie* is an *a priori* companion to metaphysics and an indispensable prelude to the theory of knowledge. Meinong has made here important contributions to logic and theory of knowledge. But I do not agree with all the conclusions drawn from his analysis of Gegenstände.

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[12] *Cf.* particularly, F. H. Bradley's *Principles of Logic* and *Appearance and Reality, passim.*

The doctrine that subsistent being is a wider and richer class of entities than existence and that the latter is a sort of temporal and empirical specification of the former seems to provide a realm of being for *universals* or *meanings* independent of any mind; it lends support to the sort of realism which would give to "ideal objects" (*Universals* and *Values*) a super-existential and nonmental being. Meinong himself believes in *impersonal values*. At this point Logical Realism becomes identical with that sort of abstract or impersonalistic idealism which confers on pure universals, such as the propositions of pure logic and mathematics, the universal relationships or "laws" of reality, and universal values, a super-existential and timeless being which is imperfectly and intermittently embodied in empirical and temporally conditioned existents. Abstract principles are accorded a being superior to actual reality. This, of course, is the sort of logical realism or abstract idealism which is frequently attributed to Plato. It figures prominently, in one disguise or another, in NeoKantianism (for example, in the Marburger School) and even in the value-philosophy of the Baden school (Windelband and others). Indeed, the step is short from the doctrine that universals and values have an eternally subsistent being to a *consciousness in general* or a *transcendent Ought* as the ultimate reality.

The doctrine that subsistence is some sort of transcendental nonmental and nonphysical being is based on a misuse of language. It seems to me to rest on the same fallacy as the Ontological Argument. Existence is not a predicate to be added to the "what" of any real subject. Subsistence is not a kind of superior and timeless being.[13] There can be no timeless being, except in the sense of endless persistence or endless duration. Even a real God could be timeless only in the latter sense. Contradictory or impossible objects of thought, and even imaginary objects of thought, really exist only as images or symbols in the mind of some individual and in the linguistic or symbolic expressions of that mind. A round square or a rope of sand are simply unmeaning conjunctions of linguistic symbols—unmeaning because they are combinations of contradictory concepts. A centaur is a conjunction of images, which conjunction is not factually impossible but is empirically unverifiable. A *perpetuum mobile* is a

[13] In patristic theology and mediæval philosophy subsistence does not mean super- or extra-existential being. It means real, persistent essential being or existence, in contrast with nonexistence and contingent existence. In the older English writers it is used in the same general sense; Baxter, for instance, says that the three great attributes of God—omnipotence, understanding and will—those attributes by which he is God, are by some called *subsistential*. "Subsistential Being" is the equivalent of "Essential Being." The same general usage will be found in Sir Thos. Browne, Milton and Cudworth.

vague expression for something incompatible with the empirical conditions of movement. It cannot even be meant or thought through. Such things have not even pure logical subsistence. If they had they might be brought into existence. In the last analysis all meanings, universals, laws, and values are derived by mental activity, through the process of abstractive construction, from empirical existence. Existence is prior and superior to subsistence. Nothing is logically possible, nothing has meaning, that is incompatible with actual existence. Even the principles of logic and mathematics are but *symbolic expressions* for the most general ways in which minds behave. If all minds were blotted out of existence there would be no logic or mathematics to subsist. The same is true even more obviously of physical science. The laws of physics do not subsist above nature and they do not, as such, exist in nature. Nature has a certain texture, certain observable characteristics (qualities or ways of behaving). Our scientific laws are symbols invented by minds for the description of these general ways of behaving. Science, indeed all truth, subsists only in and for thinking minds. Its validity depends, in the last resort, on the degree of vital correspondence that is possible between minds and the "nature" of nature as revealed through sense experience.

Above all things, to talk of *values* or *appreciations* as having any sort of being without *valuators* or *appreciators* seems to me sheer nonsense. If values are not mere figments engendered by human desire and imagination there must be a vital correspondence between the fundamental interests of human beings and physical nature. In short, laws, meanings, values, have no being apart from the feelings and activities of selves or persons in dynamic interplay with Nature. In so far as they may be valid or effective, laws and values are the mental counterparts of the ways in which nature behaves in response to the demands of human personality.

I have felt it necessary at this point to anticipate, in sketchy form, a main theme of this work, since it is raised in all its aspects by the much-touted distinction between subsistence and existence, with which many so-called realists, as well as idealists who find refuge in a vicious abstractionism, try to save science and human values while letting the troublesome and perplexing problem of personality go hang. This is throwing out the baby with the bath. Let us not be imposed upon by that vice to which philosophers and scientists are peculiarly tempted although no one is immune from it—the vice of setting up abstractions and symbols in the place of concrete realities. The only business of systematic philosophy or metaphysics is to try to *understand as fully as possible the world as it is.*

The world is no "appearance" or illusion; we are appearances of and in it, although I hope not illusions; our concepts, laws, universals, even our so-called universal values, are but appearances engendered by our minds in interaction with the rest of the cosmos. One ordinary human self is worth more, as a reality, than all the ineffable values ever conceived by the minds of philosophers. In this respect a healthy common sense is right. The naïve realist is right when he stubbornly believes, in spite of sophisticated argumentation, that what he perceives and feels are good realities. Any other starting point plays into the hands of that sickly illusionism which, in Hindu speculation *par excellence,* has been the product of auto-hypnotic dreaming, of fleeing from the actual instead of wrestling with it in thought and action.

Reality includes: (1) The particular empirical existents in time and space. (2) The temporal, spatial, dynamic, vital and whatever other *relations* there are which constitute the interplay of particulars as elements in the cosmos. *Unreality* includes everything that has no corresponding fact in the natures or relations of the existing particulars. It includes impossible, contradictory and unmeaning images, concepts and propositions, which are so because incompatible with the actual. Between the actual real and the unreal is the realm of the *possible*—of ideas of entities which are not incompatible with the actual order, but for which no corresponding existents have yet been found. "The possible is really possible"—this means its existence is not excluded by the actual.

Hans Driesch, in his *Ordnungslehre,* distinguishes between the *doctrine of order* and *metaphysics.* The doctrine of order is a systematic doctrine of the categories. It deals with the forms of ideal objects of thought (logic and mathematics) as well as with the forms of interpretation of existential objects; whereas metaphysics is concerned with the relation of knowledge and existence. Thus *Ordnungslehre* is very similar in aim to *Gegenstandstheorie* and to *Phenomenology* as Husserl conceives it. Driesch has since published a Metaphysics, *Wirklichkeitslehre,* which I have not seen.[14]

[14] I have not aimed above, either to expound Meinong's views adequately or to criticise them in detail. I have taken them as a starting point for discussing the notion of *subsistence* which plays such a large rôle in the abstract logical realism of certain neo-realists; notably so, for example in E. G. Spaulding's *The New Rationalism.* B. Russell expounded and discussed Meinong's theories in three articles in *Mind, N. S.,* Vol. xiii, pp. 204 ff., 336 ff., and 509 ff., entitled "Meinong's Theory of Complexes and Assumptions." As this volume goes to press I note the first installment of an article on "The Philosophical Researches of Meinong" by G. Dawes Hicks, in *Mind* (N. S.) Vol. xxxi, No. 1, January, 1922, pp. 1–30.

CHAPTER III

PERCEPTS AND CONCEPTS

Certain thinkers, notably, William James and H. Bergson, who insist on the validity of immediate perceptual experience as being the primary datum for philosophy, argue that in the conceptualizing process the mind is carried, not deeper into, but farther away from, reality. Percepts are characterized as concrete and dynamic, continuous with the original and ever varying flow of living reality; whereas concepts are static, abstract, pale shadows or skeletons which misrepresent the rich flux of experience, which is the real stuff of things.

I regard this opposition of perception and conception as erroneous. Certainly, all knowledge arises from the determinate data of experience. Certainly too, all our valid concepts, our most high-flown theories, must dip back into and be continuous with living experience. But there is no part of experience, however simple and dumb it may seem, that does not involve in some degree the organizing and interpreting activity of thought. The crude perception of a physical thing is an act of synthesis of sense qualities into a recognizable unity. In perceiving a stone, the self recognizes the existence of a unified complex of sense qualities. It could not recognize the thinghood of the stone if it could not be conscious of the unity of its own act in identifying the stone. It cannot be conscious of its own unity without, at the same time, recognizing the existence of other units—things and selves. The self places the stone somewhere in space. This implies the consciousness of relating the self's experience in an order of things in space. The self recognizes the existence of the stone now and then. This implies the consciousness of the self and other entities, as existing through a temporal succession, and of time as the order in which events occur and exist. The causal relation arises from recognition of the influences which the self suffers and exerts in a world of orderly events in time. The categories, in terms of

which man classifies and organizes the elements of his experiences, are engendered by the interplay of his conceptualizing intelligence with the world of sense data. The materials of sense perception submit to the organizing activity of thought. Through the organization of the empirical facts the world becomes more articulate and significant, becomes, in short, a cosmos; and the self in turn becomes more fully conscious of its own intelligent nature. The basic processes of human intelligence must be akin to the structure of a world thus apprehended, in all its variegated and colorful data, by the activity of thought. Nature, the experienced world order, is an orderly whole. The subject becomes a consciously rational self through its work of organizing, interpreting, evaluating and controlling, the natural order. In finding order or law and in achieving values in the world, the self is holding intercourse with the order of reality. No impassable gulf can be admitted to yawn between experience and thought, perception and conception. Our concepts work pragmatically. They are significant, because the intelligence which shapes them is organic to the world and the world is harmonious with intelligence.

Genuine concepts are not pale and colorless abstracts of properties common to the objects which concepts at once denote and connote. A concept is not a generic image, although a generic image, a composite photograph may furnish the imaginal setting of a concept. The true concept is a *principle of order,* a *law of a series,* a *relating function.* The *term* which expresses the concept is simply the symbol of the principle of order which is exemplified in a series of differentiations or particular embodiments of identical qualities. The true concept of man or justice, for example, is a functional meaning which signifies an order-series by which individual entities are members of a group or orderly system. These concepts do not "mean" that there is a finite number of personal qualities in men or of acts called "just," which are included under or ruled by the class concept "man" or "justice." The concept of man is the function or principle of order which is expressed differentially in a serial succession of particular individuals. The concept of justice expresses the rule or law for the continuous production and recognition of a series of typical acts, each act unique but with a qualification identical with every other act of the same character. Thus genuine concepts are the forms or types of order which express, in mental symbols, the principles

of the behavior and production of ordered series of particulars. They are laws of series.

Each concept is an individualized law or type for the arrangement, in a series, of an indefinite succession of particulars. If I have an adequate concept of man or justice, I am thus able, out of the mass of my experiences, to group and order as they appear; or, in the case of concepts of action such as justice, to produce the new and unique particulars of which these concepts are the types. The concept then of any type of being symbolizes the *law of behavior* of the individual being as member of an order-series or type. The states of any being of that type function in the specific typical relations. The biological concept of man expresses the laws of behavior of the human species as a member of the ordered series of animal forms. The psychological concept of man expresses the laws of his behavior as member of the ordered series of sentient types of life. The ethical and social concept of man expresses the laws of his behavior as member of well-ordered groups, namely the social groups. The complete concept of man would express all the laws of his behavior, all the ways in which human beings function in the totality of relations in which they live. We cannot exhaust the individual's existence in terms of his conceptual relations; hence there remain facts in our acquaintance with individuals which we know immediately by experience or direct acquaintance, and through which we appreciate the individual directly as this concretion-point of relations. Our inability to form a perfect concept of an individual is due to the complexity of the relations in which individuals live and act, and not to any irreconcilable opposition between immediate experience and thought. It is possible that a perfect intelligence would possess a complete concept, or law of behavior, for every individual. The true function of concepts is to symbolize dynamic relations of the determinate elements of reality. The genuine concepts are transcriptions into mental symbols of the ordered or serial character of a world which has a relational structure. Plato's Ideas, in their relations to the particulars of sense, were probably intended as ordering concepts in the meaning I have given to the term. Whether he regarded them as eternally existing and transcendent types of order, I cannot discuss here.

Since they are functions of order or laws of a series, concepts are dynamic. It is true, that having acquired, by our own activity,

or by inheritance from tradition, certain concepts, we may stop thinking and regard these products of arrested intellectual activity as absolute and perfect types. Thus, by failing to carry on the work of thought, our apparatus of concepts may come to fall far short of the living realities whose nature they should express. But this defect of our actual conceptual furniture is not due to any inherent defect in conceptual thinking, but to the arrest thereof, to our failure to reorganize our symbols and our meanings and bring them into harmony with the further findings of experience and with other concepts that arise therefrom. In fact it is the ordinary naïve percepts, which consist so largely of traditional images and concepts, the products of arrested and ossified thinking, that are static and inadequate to the flow of experience. The clodhopper does not perceive what the scientist, the scholar, or the philosopher perceives, just because what he thinks he perceives is so largely made up of traditional images and concepts. He perceives what he thinks he perceives because he does not think. For him physical things are simply inert masses. Fossils are but curious bits of rock that tell no stories. The earth stands still, the sun revolves around it. Miracles happen, events shoot forth mysteriously and without adequate causes. Charms and the evil eye work; magic stalks abroad. The dead appear to the living. Organs are repaired and bones are mended by faith. Soothsaying is a valid form of knowledge. Almost anything may happen, and all because he implicitly takes as *veridical* sense perception, a topsy-turvydom of primitive tradition, of imagery and belief which chimes in with his own uncriticized desires, hopes and fears. He does his perceiving with a primitive conceptual outfit. On the other hand, it is the persistent conceptual activity of thought which discovers order, continuity and movement, beneath the apparent disorder, discontinuity and inertia of those crude perceptual experiences which are really made up largely of prehistoric concepts. It is through conceptual thinking alone that we find in nature a regular causal succession, continuous evolution, ceaseless movement beneath the apparently placid surface of things; in short, in place of chaos, cosmos, an orderly world of elements in dynamic relations. It is not conceptual *thinking,* in its *fresh* analysis and synthesis of experiences, which dismembers the rich and concrete flux of living reality, which turns the green and golden tree of life into gray dead theory. This devastation is

wrought by unthinking perception masquerading in the outworn garments of primitive imagery and concepts.

James says,[1] "Out of this aboriginal sensible muchness attention carves out objects, which conception then names and identifies forever—" . . . "Out of time we cut 'days' and 'nights,' 'summers' and 'winters.' We say *what* each part of the sense continuum is and all these abstracted *whats* are concepts." But "time" is surely a much more abstract concept than "day" or "night," "day" more abstract than the "present" moment. I can form a much more accurate concept of what the present moment means than I can of what time means. I can form a concept of "here," "now," "individuals" such as myself, "President of the United States," "King of England," the sun, Mercury, Venus, this solar system. Indeed all historical sciences, whether it be human history, historical biology, geology, or astronomy, operate with concepts of individuals. Each individual has its unique character and place in space and time, but that does not hinder its being conceived in all sorts of relations of qualities, action, passion, coexistence and succession, with other individuals. Our most comprehensive concepts or categories are formed by putting together more concrete concepts. It is from "now" and "then," "day" and "night," "summer" and "winter," that we can form the concept of time. So with space, cause, identity, truth, justice, beauty, value, relation. These metaphysical concepts or categories symbolize identities of character and behavior which constitute concrete individuals members of ordered series.

The consideration of the relation between perception and conception has brought us into the heart of the problem of the individual and the universal. Those who argue that thought murders reality regard the individual as given in perception and the universal as an abstraction formed by thought from the perceptual reality. We shall consider fully the relation of the individual and the universal in a later chapter.[2] I may say here, by anticipation, that the truest, richest, realest individual is the one which implies or concretes the most universals. The individual is the concretion of universals. Universals are the relations of individuals.

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[1] *Problems of Philosophy*, p. 50.
[2] Chap. 14.

CHAPTER IV

THE CRITERIA OF KNOWLEDGE

When one asks "What is truth?" one must beware of confusing two different questions. These are: (1) What are the *subjective* or *psychological marks* of truth, how does truth "feel" to the individual knower? (2) What are the *objective logical criteria* or *universal standards* for determining the truth of propositions? Propositions or judgments have two aspects: (1) They are made or accepted and believed by individuals and thus are *mental acts or attitudes;* (2) they are, *if true, objective* and *universal*—their *meanings* agree with the universal conditions of truth and the specific character of reality. For example, when the pragmatist says that "satisfaction" or "satisfactory consequences" is the mark of true propositions, he is stating only a subjective or psychological mark of propositions, as *believed* or held to be true by individuals.

Judgments are beliefs, and the belief attitude involves feeling or sentiment. Hence Hume says that belief belongs more properly to the sensitive than to the rational part of our nature and Pascal that the heart has reasons which the intellect knows not of. If all beliefs had their motives for being held wholly in feeling there would be no objective content of truth. All science and philosophy would be reduced to the subjectivity of the individual "feeler." But, in fact, while many beliefs, such as, for example, a person's belief in himself or in his sweetheart or friend, may be based chiefly on feeling, there are beliefs which are held because of empirical evidence or logical deduction from such evidence. These are rational beliefs, based on intellectual judgments.

Here we are concerned with the problem of the *objective* or *logical criteria of truth,* and we shall now examine the principal theories on this subject. These are: (1) the *"copy"* or *representative* theory; (2) the *intuitional* or immediatist theory; (3) the *coherence* theory; and (4) the *pragmatic* theory. The "copy" or "representative" theory is sometimes called the *agreement* or

correspondence theory—mistakenly, I think, since "agreement" is too vague and all-inclusive a term to designate a specific theory of truth. We would all agree that our beliefs, to be true, must be in agreement with reality; the crucial question is—*how this agreement is to be achieved and known.* In the copy theory *agreement* means that our images, ideas and judgments are true when they are good copies or representations of reality, just as a portrait of an absent friend is a good one if it copies his appearance. This theory has its origin in the fact that the mind, through memory, forms images of things experienced in the past; and, through creative imagination and thought, forms images and conceptual symbols of things not experienced, by the rearrangement of reproduced imaginal and conceptual elements; and the images and conceptual symbols are found to be good or valid representatives, if they lead to actual experiences that agree with the pointings or meanings of their imaginal or symbolic representations. Obviously, a great many of our ideas, regarded as *meanings,* are not copies or reproductions of empirical things. Scientific and technical formulæ and laws, moral and political concepts and principles, mathematical concepts and relations, are not copies but *conceptual symbols* of actual and possible experiences or acts and processes. The mental content in such cases has no necessary imaginal or pictorial resemblances to that which it symbolizes. A very important part of valid knowledge thus consists, not of representations or copies, but of *conventionalized signs or symbols.*

The problem of knowledge is a real problem, not an exercise in hair splitting. For, naïvely, the human mind assumes offhand that its images, concepts, and symbols mean, point to, lead toward, the real things which they stand for. But what common sense means by the "real things" are just the perceptual objects which are congeries of sense data, whose character is determined in part by the structure and reactions of the percipient. It is easy to see that images and symbols are valid if they correspond with the sensual data which they mean and promise; but, since the sense data are themselves variable, what real things do they represent? How are we to determine to what extent and in what conditions our sense data are representations of reality? How can the percipient transcend his private sense data? By what criteria can he determine whether he has, in a given instance, transcended his private data?

A fatal objection to the copy theory is this: if it means that every cognitive mental content, whether sensory or ideational, is a re-presentation of a reality *external to and differing from it,* then we have no means of knowing whether the "idea" is a fair copy of the reality. Images may be copies of percepts, but *what are percepts copies of, if they too are ideas?* If we know some things by *direct acquaintance* in perception, then all knowledge does not come by way of copying things in representations. If we do not know anything by direct acquaintance, then we have no means of knowing whether any of our so-called copies and symbols of things and relations are adequately representative of the supposed independent realities. Either we can know some parts of reality in some other way than by our ideas copying or representing them, or we do not know whether we can know any reality as it really is, or to what degree our ideas are good copies or symbols of the reality.

The *intuitionist* or *immediatist theory* is that knowledge consists in *intuiting,* in having a *direct perception* of, reality. The essentials of the theory are these: I have *immediate or direct acquaintance with external reality in my sense perceptions. I have immediate or direct acquaintance with internal reality,* that is, *with the processes of mind, by introspection* or the *inner sense.* Just as I know the qualities of objects through sense perception, so, by inner reflection, I know mental processes, their various contents, and the laws of their connections. The principles of logical thinking, the principles of ethical, social, æsthetic, and religious valuations, are known in the same way. It is sometimes objected to intuitionism that it excludes from the knowing activity all *reflective* analyses. This objection is invalid. The claim that one can know by intuition the nature of physical things and the nature of mind in no way precludes the possibility or necessity of reflective analysis of one's intuitions.[1]

The weakness of intuitionism lies in its incompleteness, in what it fails to include, rather than in what it positively includes. Granted that, unless we know some things intuitively, or immediately, we cannot be sure that we know anything; granted that, if we are to have any valid knowledge of the external world, we must have immediate acquaintance with some of its real aspects or quali-

[1] *Cf.* N. Lossky, *The Intuitive Basis of Knowledge;* a well-developed argument for intuitivism. All genuine realism in theory of knowledge must admit that knowledge has an intuitive basis.

ties and relations; and granted, too, that the logical operations of the mind, the basic ways of judging, must be known by introspective analysis; intuitionalism still fails to give an adequate theory of scientific and philosophical inquiry. The variations, inconsistencies and illusions in our sense perceptions raise the question—what is the relation of our varying and conflicting experiences and beliefs to the objective order? A number of somewhat variant perceptions of a thing may be regarded as aspects of the thing cognizable. What, then, is the relation of these aspects to the real thing? Scientific analysis is requisite to answer this question. Furthermore, we cannot rest satisfied with the enunciation of a series of disconnected judgments in regard to physical, vital, logical, mathematical, ethical, æsthetic and other facts and principles. We seek to organize these various series of facts-in-relation into a harmonious system. Thought seeks consistent or harmonious systems of mathematical, physical, vital, social, ethical, æsthetic judgments or propositions; and seeks, further, to determine how these special systems may be interconnected; as well as to determine how the mind's general norms of judgment are interwoven with, and give meaning and unity to, the world of sense experience. The coherence theory is the formulation of this impetus of thought.

The *coherence theory of truth* is that the ultimate criterion of truth is the *mutual coherence or harmonious organization of judgments into a system.* Any single judgment is true only in so far as it enters as a harmonious element into a more completely articulated organism or consistent system of judgments. "The Ideal of Knowledge . . . is [2] a system, not of truths, but of truth." "The essential nature of thought is a concrete unity, a living individuality." "Truth, in its essential nature, is that systematic coherence which is the character of a significant whole. A "significant whole" is an organized individual experience, self-fulfilling and self-fulfilled. Its organization is the process of its self-fulfillment, and the concrete manifestation of its individuality." [4] The judgmental parts or single truths have no validity in isolation from the whole, and the whole is in and through the

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[2] Joachim, *The Nature of Truth*, p. 72.

[3] *Ibid.*, p. 78. This is the standpoint of F. H. Bradley, B. Bosanquet, and, in general, of the Anglo-American objective idealists.

[4] *Ibid.*, p. 76.

parts. The notions of life, organism, self-fulfilling process bring us nearest to a conception of that ideal whole, although they are all inadequate. There can be one and *only one* significant whole, one organized individual experience self-fulfilling and self-fulfilled. Nothing short of *absolute* individuality, nothing short of the completely whole experience can satisfy this postulate. Hence the truth is, from the point of view of human experience, an ideal which can never, in its completeness, be actual as human experience. As to the relation of humanly "true" judgments to the ideal whole or organism of absolute truth, our true judgments are all *partial,* abstract or indeterminate truths. No one of them is completely true when taken by itself. From judgments of particular fact, such as "this paper is smooth," to universal judgments, such as "2 plus 2 = 4" or "the law of gravitation is true for all bodies," we have an endless series of degrees of truth, degrees of approximation to the one and complete whole of truth. One true judgment may be more inclusive of other truths, and therefore, more true, than another judgment. No judgment, in and by itself, is absolutely true. The *degree of truth* possessed by any judgment *is measured by its systematic inclusiveness of other subordinate judgments. A judgment is most true when it is most determinate,* when its background is most vitally articulated as a system of judgments, into which the judgment in question fits in as a determining and determined member.[5] In the articulate systems of geometry and number, in the physical doctrine of energy, in a system of astronomical principles or geological principles, in the concrete interpretation of social-historical life by a Dante or a Goethe, or of the Renaissance by a great historian, we have a fair sample of the truest, because most systematic and determinate, types of judgments.[6]

The coherence theory of truth embodies the ideal goal of science and philosophy. If there be any absolutely normative ideal of truth this is it. But it is not the only criterion of truth, and often it is, in practice, useless. A carping critic might say that, if no truth is wholly true, then the judgment that truth is coherence is not wholly true. But the advocate of the coherence theory

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[5] *Ibid.,* p. 113.

[6] The most persuasive expositions of this doctrine are in Bosanquet's *Logic,* especially Vol. II, Chaps. 9 and 10, and *The Principle of Individuality and Value, passim.*

might reply that no justification can be asked for a criterion of truth except that it states *what* the *characteristics are, that,* in varying degrees, *actually are manifested in truth.* A more serious objection to the coherence criterion is that, since we do not and cannot know the absolute totality or organism of truth, since we cannot possess the one whole and perfect individual system of experience, we cannot use this criterion to determine the degree of truth possessed by our various judgments and partial systems of judgment. We cannot even determine by it the relative validity of various truths in different partial or finite systems, each of which may be coherent with other judgments within its own particular system. I am now immediately certain that I (whatever "I" may be) am writing in my study. I am certain, in the same manner, of the general character of my immediate physical surroundings. I am also certain of the truth of some propositions in mathematics; certain too, of a few values in human relationships, literature and art; and I regard some historical facts as highly credible. But I have not the least inkling, perhaps, as to *how* these various types of judgment systems, enter, as factors, into the absolute whole of truth. I may and do hope and believe that, somehow, all true judgments concerning reality must cohere into one whole or individual system; since, otherwise, reality cannot be a perfectly intelligible order, and hence not a cosmos, a universe at all. But, since I do not and cannot know this one coherent whole, in its concrete individuality, I do not *know,* either that the ideal of truth is fully honored by reality, or what particular place any specific finite judgments, or systems of judgments, may occupy in the perfect whole. Thus the coherence theory, while it expresses an ideal that guides thought and that, *so far as it is applicable, is absolute,* cannot be the only working criterion of truth. On the other hand, obedience to the ideal of coherence, freedom from contradiction in a systematic whole, or harmonious totality, is the most imperious and inescapable principle that controls thought.

A third objection to the coherence theory is that thought might build up *ideally* or *formally coherent systems of judgments,* in which each member of the system might fit beautifully into the articulated whole, while the whole structure was out of touch with reality or, at best, might be a beautiful system of bare possibilities. In transcendental geometries, in ultraromantic theories of life, in the religious illusions of demented persons, and in speculations

in regard to the life after death, we find such systems. The reply to this criticism is that the ideal is not one of formal consistency of propositions concerning reality in the abstract, *but* of *coherence, organic wholeness,* or *harmonious individuality, in experience regarded as a socially valid system.* In short, the coherence theory means that our judgments must symbolize or be harmonious with all aspects of reality. *Coherence with empirical fact must be our starting point,* and membership in society is a stubborn fact. *Therefore, the coherence theory must presuppose that experience is in touch with reality.* It cannot blow hot and cold. It cannot start with the faith in the trustworthiness of immediate experience and then, by a dialectic use of its criterion, undermine the validity of immediate experience.[1] If it does this it defeats itself. The objects of belief in judgments are, in the last analysis, *not propositions about reality but reality itself.* There is a *duality* in knowledge. A true judgment or belief is the presence in a mind of a *meaning symbolized,* a *conscious intent signified, that refers, in right relations, to a reality other than itself;* and which, as object of belief, is existentially distinct from the judgment itself. *True propositions are always mental* but their objects need not be mental. Hence, even an absolute whole of truth must be a coherent system of judgments or *meanings* which constitute a consciousness or awareness in which these judgments function. Truth then must be *immanent in reality.* There must be a dynamic commerce between the knower and the objects of knowledge. Both must be reciprocally functioning factors in one world.

Pragmatism, or *instrumentalism,* criticises the coherence theory as useless in application, and professes, for its own part, to offer a clear working conception of the dynamic commerce between ideas and realities, by virtue of which ideas *become true,* or the reverse. The pragmatist or instrumentalist insists that ideas are immanent agents, dynamic instruments, in the making and remaking of experience. The function of ideas is not to copy or represent particular things, nor is it the function of truth to be an "ideally" harmonious or coherent mental replica of reality. Indeed the pragmatist thinks that, since reality is muddy, incoherent and ever flowing, true ideas can never be parts of one coherent timeless whole of truth.

[1] As Bradley seems to do with respect, especially, to the temporal character of experience.

The pragmatist says that a true proposition is always one that leads to satisfactory consequences of some sort to some person or persons. And, by satisfactory consequences, he means all sorts of satisfactions. If A believes that B will lend him a thousand dollars, which he badly needs, on his note, and B actually lends him the money, then *A's belief becomes true,* because it has the anticipated satisfactory consequence. But the belief, pragmatically, is not true until B has actually agreed to loan the sum in question to A. It is true just in so far, and as soon, as the belief leads into the expected results. If the law of gravitation becomes true it will be because the belief in it will have satisfactory consequences and disbelief in it disastrous consequences. If A loves B and believes that B loves him, and if B reciprocates the affection, the consequences again are satisfactory and the belief *becomes true.* The proof of the pudding is in the eating. If belief in a theorem in algebra or geometry will lead to the satisfactory consequence that it will harmonize with other theorems, and, perhaps, will have application in engineering, the theorem thus becomes true, but it was not true until the good consequences ensued.

The pragmatic method starts from the postulate that there is no difference of truth that doesn't make a difference of fact somewhere; and it seeks to determine the meaning of all differences of opinion by making the discussion hinge, as soon as possible, upon some practical or particular issue. The principle of pure experience is also a methodical postulate. Nothing shall be admitted as fact, it says, except what can be experienced at some definite time by some experient, and for every feature of fact so experienced, a definite place must be found somewhere in the final system of reality. In other words, everything real must be experienceable somewhere, and every kind of thing experienced must be somewhere real.[8]

In short, the sole test of the truth of ideas or propositions is to be found in their practical working values. "By their fruits ye shall know them." If the fruit is good the ideas *become* true. If the fruit is rotten, or produces a stomach ache, the ideas are false. And by good fruits the pragmatist means future satisfactory experiences. The pragmatist means, when he substitutes for static "verity," dynamic "verifiability," "workableness," or "cash value" in concrete experiences, that the claims to truth on the part

[8] William James, *A Pluralistic Universe,* p. 372.

of ideas and propositions must be tested by the consequences which they lead to in the way of further experiences, and that the fruitage of an idea or proposition in concrete empirical value is the only measure of its truth. Thus he states what is obviously the inductive method of procedure; an idea or proposition is a working hypothesis which is to be either corroborated or refuted by future empirical results.

The pragmatist is clearly right in saying that, in the long run and taking account of the social and physical relations and effects of belief, true beliefs are those which will yield solid and lasting satisfactions; yield experimental and technical satisfactions in science and industry; yield practical emotional satisfactions in the supplying of man's daily wants; yield satisfactions to the demands of his æsthetic, intellectual and moral nature.

But the pragmatist has only told us that, if we try to verify our beliefs, by reference of propositions deduced from them to further experiences and to further actions and future feelings, either we shall verify them or we shall not verify them. Verified beliefs are satisfactory to the believer; refuted beliefs are unsatisfactory; but unrefuted beliefs may be satisfactory and yet false. A person may get much enjoyment from illusions and hallucinations; in fact most of us do some of the time and some of us all or nearly all of the time. Human beings are particularly prone to cherishing illusions in regard to their own abilities, characters and even looks. These illusions are often very agreeable.

Certainly, we can only know that a proposition is true by finding that it works well in some present or future context of action, thought, and feeling. But a proposition can only work satisfactorily if it be true, that is, if it agree with fact and reason. The satisfaction that follows from belief in a given proposition depends, not on the believer's pious belief in it, nor on the psychical proposition as an entertained mental content but on the truth of the proposition. If I believe a proposition, and it has permanently satisfactory consequences, there must have been some truth in the proposition, but that truth was determined, not by my belief that it would have satisfactory results but, by the nature of things themselves with which my belief happened to agree.

There are several ambiguities lurking in the way of pragmatism, for it attempts answers to at least three distinct problems. First is the problem of a *method of procedure,* the verification of

ideas and propositions. The pragmatic postulate, that differences in the meanings and applications of ideas must correspond to differences of fact somewhere, somehow, and that if ideas have no differences in empirical consequences they must really mean the same thing, is a wholly sound method of procedure, so far as it can be applied. Indeed, it is just the empirical method. It is true that the ambiguity lurks in the word "makes"; most human ideas do not make the facts or laws to which they correspond, if true. But ideas, in the shape of purposes and volitions, are dynamic facts which do alter the relation between other facts, and thus to some extent remake, or make over real facts. But even the volitional transformations of reality are subject to the actual structure of reality as a whole. Volition works successfully within the narrow limits prescribed by the determinate constitution of reality. When Thomas Carlyle heard that Margaret Fuller Ossoli, the transcendentalist, had accepted the universe, he said: "Gad, she'd better."

The pragmatist assumes, as William James puts it, that "reality is in the making and awaits a part of its complexion from the future."

No doubt reality is, to some extent, always in the making, but the materials, and the ways of successful making, are not created by human wishes. They belong to the objective order which makes our ideas either true or false.

The second problem is, in contrast to the statement of a method of verification, the problem of *the criteria of truth*. The pragmatic answer to this problem is that the criterion is satisfactoriness, agreeableness, good fruits, or cash value. But he neglects to tell us how we are to know good fruits from bad fruits, genuine cash from counterfeits, etc., in any other terms than satisfyingness, agreeableness. James said the criterion is all kinds of satisfactions, affectional, æsthetic, moral and logical. What is the criterion of genuine and lasting satisfactoriness? How is one to know when a belief in a theoretical proposition or a practical plan, which in its inception and embracement is enjoyable, will continue to yield intellectual or emotional gratification? "All is not gold that glitters"; "far off pastures are green"; "things are what they are, and they will be what they will be." In admitting that consistency or coherence between ideas and beliefs, is the most imperious claimant of all, James really deviated from pure pragmatism.

Later pragmatists or instrumentalists, notably Mr. Dewey, make value for the furtherance of social welfare and individual happiness the most comprehensive criterion of satisfactoriness or truth. But while most reasonable human beings agree that the highest criteria of moral and social principles are social welfare and individual happiness, they disagree with regard to what constitutes social welfare and happiness, just as they disagree as to what constitutes lasting satisfaction. Moreover, there are many propositions in symbolic logic, higher mathematics, physics, astronomy, other sciences, history, art, et cetera, which have no obvious bearing on social welfare or even on individual happiness. What, for instance, are the social consequences or satisfactions which make true Bertrand Russell's philosophy of mathematics, or Einstein's theory of the relativity of space and time, if they are true? In what respect do these things add to the gayety of nations or individuals? Must we wait to see how they can be applied in furthering democracy, or in industry, to decide whether these theories are true or not? Are we to decide whether immortality, spiritualism, or materialism, are true or false, simply by asking: Which alternative would probably give most happiness to the largest number of human beings? If feelings of satisfaction or happiness are the most ultimate criteria of the truth of propositions, then the truest propositions are those for which the majority votes, and many propositions and values in such fields as higher mathematics, logic and metaphysics, astral physics, history and art, are neither true nor false, but insignificant, since only a very small minority entertain them at all and derive pallid pleasures from them. They are both practically useless and perhaps unpalatable truths. (I have very seldom derived any satisfaction from the deliverances of the comptometer at my bank, but I have invariably found its results to be annoyingly correct.) We may *hope* that somehow and somewhere every true proposition will yield satisfaction, but we do not know that this is so. The pragmatist says that an idea, to be true, must make a difference in reality. Certainly it must always make a difference to us in our relations to other parts of reality whether *our* ideas are true. Our ideas, if true, must lead to consequences of some sort; otherwise, they are otiose and unmeaning. False beliefs also lead to consequences, sometimes agreeable and sometimes not. But ideas and beliefs can work well in the long run for the individual and society only if they are in harmony with

the nature of reality as a whole, and provided that the nature of reality be in harmony with the permanent interests of human nature. That it is so, we all instinctively assume, but we have no absolute certainty of the truth of this assumption. It sometimes happens that between two or more inconsistent hypotheses or beliefs, the facts do not give us unequivocal grounds for choosing. Two incompatible ideas may work equally well, affording equally good satisfactions. The moral standards of him who scorns delights and lives laborious days from a sense of duty and the unmoral principles of the prudent epicurean, may afford equal amounts of satisfaction to their respective votaries; which then is true? Pragmatically, it would seem that there can be no preferential choice between them.

Meanings, to be true, must be in harmony with the actual constitution of reality. The primary postulate of intelligent life is that reality is responsive to the organizing activity of thought. Perhaps this postulate gets increasing justification in the progress of knowledge and conduct; but, since our interpretations of experience change and grow, and our experience changes and grows with the interpretations, it cannot be maintained that any analysis and conceptual interpretation of experience is complete and final. On the other hand, many features of human experience are, on the whole, pretty constant. The elemental qualities of sense data, human affection, and the structure of thought, are irreducible. They are, as Mr. Russell says, "hard data." There is no criterion by which we can determine whether we know reality as it may exist independently of our sense data, our affectional reactions thereto, and our conceptual interpretations thereof. We can have no concern with such an abstractly conceived world as reality in itself. The structural principles of thought and the valuations which result from our affectional reactions to sense data are all interwoven in the texture of what is for us the only actual world. We form our conceptual pictures of the world by the organization and interpretation of sense data, of our affectional evaluations, and of the relations between sense data and our affective life; through reflective thinking. In this sense, man, as a perceiving, feeling, and above all, a rational or thinking being, is the measure of reality. For we can find no other.

The pragmatist who finds the criterion of reality and truth in *satisfaction,* and the speculative idealist who argues that the

absolute satisfaction is to be found in the ideal of a strictly harmonious whole of experience, are not so far apart as at first blush they seem to be. The greatest difference between them is that, whereas the speculative idealist holds that his criterion of satisfaction is eternally real, and a *terminus a quo,* the pragmatist regards it as a goal to be indefinitely approximated to; that is, as a *terminus ad quem.* For the idealist the strictly harmonious whole is really here and now, as always. Our business is to decipher it and live by the light of our discovery. For the pragmatist this ideal harmony of experience is not now real, and our business is to make it more nearly real. For my own part I do not know whether reality is now a strictly harmonious whole. If it is not, we may be able to do something to make it a little more harmonious, but our first business, as thinkers, is to find out what reality is like, and that is the whole business of metaphysics. *I shall define reality as including everything which we must take account of in our thinking and willing.* Alike in sense perception, in the intuition of logical relations, and in the appreciations or valuing reactions of human affection, *it is the unavoidableness,* the *inevitableness* of *the inferences and the acts, their congruence with one another and their repetition or persistence that constitute their reality.* Sensory data we cannot abolish or pass through as through a mist. Whatever logical constructions we may set up to account for the stubborn persistence of the data, the affectional reactions or evaluations of experience that human beings make, such as desire and aversion, love and hate, are equally stubborn data. The logical principles, or fundamental modes of operation of thought, are a third set of stubborn data. I shall take reality then to include the most individual and private human feelings, views and valuations, no less than sensory data and logical principles. I shall take it to include the *relations* between these entities, to include those thought-constructed entities which are logically implicated in the structure of actual experience. *Actuality* belongs to the whole complex of experience, sensory, affectional, reflective, appreciative and volitional. It includes the particular data and their contexture of relations. *Reality* is not merely either subjective or objective, psychical or physical, sensuously particular or abstractly universal. It includes and transcends in its totality all of these. It is the whole of actual experience with its logical structure and implications. The most comprehensive criterion of truth or knowledge is

this: the truest propositions are those worked out by the most thoroughgoing analysis of sensory data, affective attitudes and conative acts, and by the most comprehensive synthesis or organization of the results of analysis under the guidance of the intellectual principles of *categorialness, comprehensiveness* and *consistency.* A proposition is categorial if its data cannot be broken up into more elementary ones. By comprehensiveness I mean that truth requires that we should regard the relevancy of propositions to one another, and by consistency I mean that true propositions cannot contradict one another.

The third problem involved in James' statement of pragmatism is this: must every so-called fact, to be recognized as real fact, be experienceable, that is, be conceivable as under definite assignable conditions existing for some actual or hypothetical experient? An affirmative answer to this question means this: knowable reality is experienceable reality, and unexperienceable reality is as good as nonexistent. Now there may be realities which are not and never will be empirical facts. It cannot be gainsaid that there may be existent things that are not only beyond the range of all actual experience, but, as well, beyond the range of all possible experience. To have insisted on this point is one merit of neorealism. On the other hand, all reality that can be matter for intelligible discussion must be either matter of actual experience or conceivable as, under definite and assignable conditions, becoming matter of experience. All our scientific and philosophical doctrines are subject, of course, to the qualification that the whole field of human experience and its interpretation may be one vast illusion, may be an original distortion of a real existence whose character is in some wholly inscrutable fashion different from our world. But this abstract possibility need not disturb us. Motley is the garb we wear, and it would be folly to discard or neglect to repair our own livery because, perchance, we may cut a sorry figure in the eyes of some unknowable cosmic joker. In science and in philosophy, as in practical life, we are limited to the world of human experience and its organization and conceptual extension in the pursuit of our affectional and logical aims. Anything beyond the human world, by which we might reinterpret or reconstruct its character, could affect our world only by becoming an integral part thereof. Any absolute, into which our human world is absorbed or transmuted, no one knows how or to what extent, is both prac-

tically useless and logically worthless. In this sense all philosophy must necessarily be humanistic.

Truth is the reflective apprehension and the expression in symbols of the relations, in other words of the theoretical meanings and the practical values, that constitute the texture of experience. Even the most abstract and symbolic principles of pure logic and mathematics derive from and refer back to the texture of experience. In the various partial systems, which constitute the bodies of special sciences and particular knowledges, emphasis may fall principally on the universal relationships as in pure logic and mathematics; or it may fall chiefly on the significant qualitative values and special relationships of individual beings and events, as in history, biography, art, *belles lettres*. There are, in the total field of knowledge and conduct, many grades of varying emphasis on unique fact and universal; but, wherever reality has meaning and can thus be subject matter of knowledge or intelligent practice, both must be present and interwoven in some degree. Philosophy's task is to correct a one-sided emphasis on special types of fact and special types of relational connections or universals, to see that justice is done to the integral nature of truth and life. Philosophy's fruit resides in no mystical intuition of a transcendental order, but in that settled determination to see life steadily and to see it whole, which alone will deliver men from intellectual provincialism and practical parochialism.

Every specific judgment in regard to existence depends for its truth on its consistency with actual experience and its consistency with further experiences. If a judgment clash with a concrete experience, the meaning of its experiental context has been misconceived. On the other hand there are various sorts of disharmonies in actual experience. Hence a judgment or inference which expresses a disharmony in experience may be true, and a judgment which expresses a harmony may be false because inconsistent with fact. The ultimate ideal of truth, as the significant and coherent awareness of reality, must not be taken to mean that reality contains no conflicts, no unreconciled oppositions. It does not take a professional philosopher to see that conflict and opposition are cardinal features in the individual life as well as of the social and cosmic orders. Indeed, the philosopher must beware lest, in his persistent quest for the intellectual vision of a cosmic order, he read his own passionate desire for harmony and totality over

hastily into the tangled facts of experience. To do this is to commit what is the philosopher's fallacy *par excellence*. The agreement of thought with reality does not mean that truth is the reflection of a completely harmonious experience or perfect world order. Harmony or self-consistency in thought and feeling is the ideal standard of our intellectual quest, as of our practical conations, our æsthetic visions and our religious aspirations. But such harmony is never our actual and complete possession. Truth, as a human achievement, is the progressing reflective awareness of the systematic interrelations of all the qualitative elements of reality. But actual reality ever remains, for us men, full of problems and disharmonies. If reality be ultimately a coherent whole, its conflicts and discords will somehow enter into it as constituent elements. The philosopher has a twofold problem on his hands—what are the ultimate qualitative constituents of reality and what are their interrelations?

Actual reality is the whole content of experience. Of this the interpretative activity of thought is an inexpugnable part. Since actual reality is never a completely given and harmonious whole of fact, it is always in part an intellectual problem. A fact may be a partial answer to a specific problem, but it always starts up another problem. The fact is always a fragmentary experience enmeshed in a context of relations. The correspondence test of truth applies most obviously to the agreement of judgment and beliefs with immediate experience. A proposition that points to an immediate experience is proved by comparison with the kind of experience it points to. The lack of agreement between a proposition and a concrete experience requires either the revision or the rejection of the proposition. On the other hand an immediate experience points beyond itself just as truly as a proposition about immediate experience. Our judgments and beliefs, on the one hand, and our immediate experiences, on the other hand, must harmonize, and we can draw no hard and fast line between immediate experiences and their meanings. Moreover, there are many propositions claiming to be true which lie beyond the range of complete verification in immediate experience. Such are all universal relations in pure logic and mathematics, many new generalizations in physical science, alleged facts of history, and ethical and religious valuations. Into these fields we are led, and through them we are guided, by the ideal of a harmonious whole of truth

and life. Thus, the never completely realized ideal of the harmonious whole is the very nerve of truth seeking and all practical endeavor. Thus the specific and concrete agreements of judgments and beliefs with fact are stages in the realization of the ideal of significant harmony as the ultimate goal of thought and life. Guided by this ideal we may rationally believe in the reality of entities that we never expect to experience directly, because this belief is logically implied both in the theoretical and practical continuity of experience. For example, I have never directly experienced the immediate reality of other personal centers of affective experience; but, logically, affectively, and ethically, my world would be a bedlam without this belief. For similar reasons, I believe in the physical constituents of the stars and in the dynamic or spatial or temporal continuity of the physical universe. Personally I find myself constrained, for similar reasons, to believe in the continuity of life. Why? Because without such beliefs actual experience would be incoherent. Thus sensory and affectional experiences are never self-complete. They never stand wholly on their own feet. If they could there would be no need of scientific theories nor of ethical, philosophical or religious doctrines. Moreover the nonexperienced entities in which we believe also include entities that we may never expect to see face to face. My belief in a rational and righteous world order may be valid, though I may never expect to see face to face the sustainer of this world order. We believe in these nonexperienced entities, because such belief is the ultimate consequence of the fundamental working assumption of science and conduct; that reality is a coherent whole in which the meanings of our actual experience are constituent factors, although we may not be able to see how the latter enter as integral elements into an intuition of the whole. This working assumption is what is meant by the hypothesis of the rationality of the universe. The inconsistencies in actual experience, and in its interpretations, impel thought to the reconstruction of experience and its interpretations. By this continuous reconstruction we make our knowledge and our conduct more harmonious with reality —that is, we make the bits of reality which *we are* more harmonious with the universe. The adequate interpretation of actual experience requires that it be enlarged and completed by belief in a conceptual reality of which the empirical reality is but a partial aspect. The fuller and more harmonious conceptual reality is a

realm of concrete possibilities, since some of the conditions of its being are actually present in empirical reality and in the logical, ethical and æsthetic demands of selves. For example, that one shall make a valuable discovery in science, aid materially in the work of social reconstruction, realize a moral ideal, or write a great drama or novel—all these are concrete or real possibilities, since some of the conditions of their fulfillment are actual in the empirical world of nature and humanity. Promises and potencies of future fulfillment of purposes and values must be as real as empirical fact. The universe is a storehouse of determinate possibilities for human thinkers and doers.

The validity of knowledge presupposes (1) that the mind has, at some points at least, immediate acquaintance with reality; and (2) that those parts of reality which do not consist of the individual mind's acts of knowing exist independently of the individual mind. One must reject the argument that, since an immediate acquaintance with actuality is matter *for* or before conscious experience, therefore one cannot know anything that does not exist *in* some consciousness. This argument interchanges for "before or present to" and "in" in the sense of "dependent on." While, on the one hand, the character of the sensory system of the experient and the structure of his thought is implicated in the character of the objects experienced and related, on the other hand it is an assumption wholly without warrant to say that the natures of the objects experienced must be constituted or even distorted by being experienced and thought. The human consciousness may be, to some extent, pellucid. If thinking cannot grasp relations objective to the thinker the case is hopeless for any knowledge.

To sum up: The pragmatist rightly insists that ideas, to be true, must somewhere and sometime correspond with facts; must, in short, find factual fulfillment. He is wrong when he argues that those ideas, and those alone, which seem to satisfy the immediate practical and emotional interests of individuals or social groups are therefore true; he is overlooking the stubborn and determinate character both of the order of brute physical fact and of the order of psychical and logical fact. The absolute idealist is right in insisting that the very structure of reason or thought is such that contradictory propositions cannot be accepted by it and that it is of the very essence of mind, in all its phases, to seek harmony or consistency in experience and its interpretations. He is wrong in

so far as he assumes that an eternal or supertemporal harmony is the only true reality; thus discounting the meaning of the actual discords and conflicts in human experience with the glib and useless formula that these discords are all transmuted and absorbed in the beautiful bliss of the eternal harmony—the formula is useless until we are told just *how* the transmutation is to be wrought.

Truth is the most adequate and consistent agreement of the meanings, distilled by reflexion from experimental fact, with fact and with one another.

CHAPTER V

KNOWLEDGE AND REALITY [1]

What is the relation of cognition to its objects? There are two extreme answers to this question—*epistemological monism* and *epistemological dualism.* The monist holds that, in every case of genuine knowing, the state or act of knowing is identical with its objects. In so far as I am a knower I am identical with what I know. In perceiving a physical object the thing perceived is identical with the state of perception. In Berkeley's words, *esse est percipi.* Similarly, in imagining or conceiving anything the mental process must be existentially identical with what is conceived or imagined. It follows that all reality is matter of experience, content of an experient's mind. The doctrine is identified with naïve realism, the belief that we always know things exactly as they are. If this means the naïveté of the man in the street, I must demur. So far as I know him, he is not quite so unsophisticated.

Let it be denied that the experient experiences himself. Then from the premises of epistemological monism, since all reality is experience, the experient is nonexistent, and experience is a fatherless and motherless waif; it turns into a neutral world of pure experience (*à la* James); then since experience without an experient is a bit thick it is changed, by the new realists, into a world of neutral entities which are neither fish, flesh nor fowl. The good Bishop of Cloyne would turn in his grave at the sight of his progeny. But the neutral entities are logically descended from Berkeley. Begin by denying the duality of cognition and its objects, and the validity of constructing a concept of material substance since it is not actually experienced, and logically the self

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[1] This and the following chapters are in part the revised form of a discussion first printed, under the title "Perception and Physical Reality," in *The Philosophical Review,* Vol. xix, No. i, January, 1910, pp. 1–21.

goes the same way, as Hume the *enfant terrible* of British mentalism showed; then experience or reality ceases to be experience; it cannot be matter and there is no mind; there is nothing left for it but neutrality.[2]

Let us take monism as a hypothesis and work it. If the mind is wholly identical with the objects of its knowing then Berkeleyanism or "mentalism" follows as the night from day. Whatsoever exists can exist only as the content of some conscious subject or experient. If I must believe that a part of my experience-content exists when I am not experiencing it, then it must exist in and for some other mind. But, if all that I know be what I experience, how do I know that any other mind exists? I do not experience immediately any other self, and if I did he would be but my idea, which might not be very satisfactory to him. Berkeley argues that I know that I do not cause my own ideas or objects of knowledge to exist, since they come and go, at least to a large extent, independently of my will; therefore, they must have an originating and sustaining cause independent of me. Now, I am immediately aware of myself as a cause; therefore the independent cause of my experience must be another will or self. Certainly I would never be conscious of myself as willing or as a cause unless there were obstacles to my desires and purposes. Therefore my consciousness of willing *presupposes* the existence of something real independent of my will; but this something is not, of necessity, another will. For instance, I do not have to assume that the inertia of the table is a case of countervolition. The table does not, in the least, behave like a self. Moreover, I become conscious of myself as will, only in conflict and coöperation with centers of resistance and coöperation, which I recognize as being *other* than myself and, because of differences in behavior between these other centers of resistance (some of them can be persuaded, intimidated or enticed into acting with and for me), I am led to make a distinction between *nonvolitional* or *physical centers* of *inertia* and *action* and *other volitional centers. In fact it is not possible to account for my coming to full self-consciousness at all,*

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[2] The supposed duality between knowledge and its objects has been confused with, and indeed based on, the metaphysical two-substance dualism of mind and body. The two problems are quite distinct, though related; we shall not get forward unless we keep them distinct. Our present concern is with the duality of subject and object in cognition.

except in social relations with other centers of consciousness. Thus, Berkeley's argument falls to the ground, unless it be first assumed that other finite centers of volition exist. He assumes, without proof, the existence of human society. He is a social and psychical realist and pluralist.

Now, given a society of selves (two will be enough), *the cognitively primary objective or real world is that which appears to exist in common for these selves.* If a physical object is real for me I must believe that any normal self would perceive its existence, if placed under the same conditions as I am under. The perceptions of an abnormal self, that is, one out of key with the social normality, would be explained in terms of his deviation from the normal or social standard. To say that a judgment or a series of judgments is true, that a concept or law is valid, is to say, in effect, that other selves, with the same sensory and intellectual make-up, would recognize it to be true under the same conditions. The cognized existence of a common or real physical world presupposes an *identity of function, and hence, of structure, in different selves.* On the other hand, if two selves do not perceive quite the same thing (in the case, say, of color or tone discriminations) they can discover and recognize the reasons why they do not perceive quite the same thing. But the possibility of this recognition presupposes an identity of perceptual and intellectual function in different selves.

Thus, it is impossible to account for knowledge without presupposing the existence of at least one other self than the knower. *The admission of physical objectivity presupposes the admission of the reality of society. The cognized objective order is a function of the social order.* And, if one refuses to make the admission and accepts the logical consequence, *solipsistic subjectivism,* namely—that he knows only that *he* himself exists as a conscious being, the reply is that, when he says this he announces that there are other conscious beings. If I say that "I" am the only self that I am sure really exists, the sentence has meaning only because I surreptitiously assume the existence of other "I" 's. For genetic psychology clearly shows that the consciousness of the "I" is conditioned by the consciousness of other "I" 's. What sense is there in affirming my own existence, if there be no one else to recognize my existence or to challenge my affirmation? The solipsist forgets that his own consciousness is relative to, and implies the recog-

nition of, and by, other selves. The existence of community and the power of communication are the presuppositions of all human agreements and disagreements in regard to an objective or real world.

Furthermore, a considerable part of our knowledge is *representative* or *symbolical.* When I say, "I know the content of a certain book," or "I know a certain place other than where I am," or "I know the Darwinian theory or the theory of gravitation," I mean that I have "ideas" or trains of sentences, pictorial images and scientific symbols, which I believe to represent the realities in question. I do not mean that *I* as knower am the book or the place or the theory in question. *Knowing always involves a duality* —a relation between images, words or symbols with *meanings* for some knower and the objects which these images or symbols mean. To mean, may be to picture, point to, or express by a symbol, a quality or relation of the thing meant, such as a color, a mode of behavior, an ethical value. Thus far, the position of *epistemological dualism* is correct. The being of knowing is not identical with the being of the objects of knowledge. The cognitive difference between sensation and perception, for instance, is that sensation consists in a sensory process whose setting and relations are not clearly cognized, whereas a perception is a clear cognition; the difference between a dumb *feeling* and an *awareness* is that in dumb feeling we are not aware that we feel.

Naïve realism tries to get around the duality of knowing and its objects by the doctrine that knowing consists in the knower's ideas *copying* or *representing* the objects known. In perception the knower is not aware of having copies of things in his mind. Perception is an attitude in which the percipient is immediately aware of the object perceived. But there are memory-images and symbols (words and pictures) to represent objects not present to sense. And there are other knowers, whose acts and words do not indicate that they perceive things in quite the same way that I do. There is color blindness; there are variations in the perceptions of sizes, shapes, odors, tastes; there are, in short, many sorts of differences between the percepts of different percipients; and even the same percipient varies from time to time in his perception of the supposedly same object. If one must assume that the things perceived are identical with the perception of them, it would follow that there are as many distinct things as there are distinct

percepts.[3] Suppose all the people on this half of the earth to be perceiving a sun simultaneously; then there would be, perhaps, 800,000,000 suns; suppose they all shut their eyes for five minutes, then all these suns would vanish and 800,000,000 new suns would spring into existence when they opened their eyes again. But there does seem to be some degree of *constancy* and *order* about the qualities and appearances of the sun. The simplest hypothesis is that there is one sun, which is perceived by everybody and that everybody perceives it according to his sensory and mental equipment and history and position. Such is the view of common sense. It escapes one difficulty to fall into another. If all our perceptions are copies of objects, how can we know how good copies they are, or that they do not wholly misrepresent the originals, unless we can perceive the originals? And how can we perceive the originals, unless our percepts are at least parts or aspects of the originals.

There is a *duality* in knowing that cannot be overcome, but, if it be a *dualism,* then all knowing, so-called, is reduced to the status of subjective states. It all may be, as Locke put it, "bare vision."

But, if we admit an inherent duality in the knowing process, are we not committed to *phenomenalism,* all along the line—to the view that we know, not reality or things in themselves, but only their phenomena or appearances? Does not the admission that ideas are representatives or symbols of realities other than themselves commit one to the further admission that one cannot say just what ideas represent and how far and how well they are representative? Would it not follow that the only way to know reality would be to transcend reflective knowledge in an *immediate experience, in which the distinction of subject and object in knowing would be dissolved in an immediacy,* like unto, but higher than, the immediacy of mere sensation or feeling? Such is the conclusion that philosophers traveling over such diverse roads as Plotinus, Fichte, Schelling, F. H. Bradley, William James and Henri Bergson seem to reach.

Once the epistemological monism of the naïve realist is abandoned, philosophy seems committed to a phenomenalistic view of knowledge, from which there is no escape except by way of the

[3] Hume saw this. *Cf. Treatise,* Book i, Part iv, Sect. 2.

transcendence of the knowledge relation in some ineffable and incommunicable experience or mystic intuition. How can knowing transcend itself and remain knowing? Must it not die to live again in some sort of immediate experience, an aboriginal flow of feeling or self-transcending intuition, if the self is to reach reality?

There are various forms and shades of phenomenalism. The one principle which they have in common is that it is not possible for the human mind, by reflective knowing, to transcend itself, to break out of the charmed circle of its own processes and to lay hold on the real stuff of reality. The chief varieties of phenomenalism are: (1) The sensationalistic or impressionistic phenomenalism of Hume, J. S. Mill, T. H. Huxley, Ernst Mach, Karl Pearson, and many scientists.[4] (2) The rationalistic phenomenalism of Kant and his orthodox followers. (3) Related to the latter doctrine are the immediatist doctrine of Mr. F. H. Bradley, the immediatism of William James and the intuitionism of M. Bergson; these thinkers, reaching by different routes the conclusion that conceptualizing or reflective thinking does not acquaint us with the nature of reality, find reality in an immediate experience, feeling, or intuition.

1. Hume's doctrine that we know only our own impressions and the traces left by them, together with the associational linkages formed among them, by force of contiguity, repetition and resemblance, logically leads to agnostic phenomenalism and solipsism. We may *believe* in an external world and other selves, but we have no rational grounds for such beliefs. Their basis is instinct and custom. Hume was consistent in holding that we do not know whether there is any objective reality, much less what it is like.[5] He fails, however, to account for the belief in it, as well as for the fact that our ideas and calculations are, to a large extent, verified by the course of experience. In fact, like all thoroughpaced skepticism, Hume's doctrine not only does not account for the suc-

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[4] The "Transfigured Realism" of Herbert Spencer is a restatement of the negative or phenomenalistic arguments of Kant; but Spencer breaks through the circle of subjectivism with the argument that our immediate consciousness of force, revealed in the sense of effort, entitles us to conclude to the absolute reality of force or energy; the ultimate and basic reality is an infinite and eternal energy from which all things proceed.

[5] Hume, *Treatise*, Book i, especially Part iv. Hume, of course, was clear-sighted enough to see the logical consequence of his own skepticism.

cessful practical working of our postulates or beliefs about reality; but, moreover, it does not account for the necessity that the skeptic is under, like other men, of making such postulations. Why should a solipsistic skeptic ever take the trouble to state even his negative theory of knowledge if he is in doubt whether there is any one to hear him or read him, and especially since *he himself* only exists as a passing thought?

The analysis of perception by psychology, physiology and physics seems to give foundation for a scientific phenomenalism such as one finds in Karl Pearson. Perception and conception, it is said, deal only with appearances, not with things in themselves, since scientific analysis shows that what we actually sense are patches of color and shape, sensations of movement, solidity, roughness and smoothness, odors, tastes, heat and cold. These sense data we group into things, we know not why. These sense data are produced, or at least conditioned, by nerve processes and other processes in the sense organs, nerve fibers and the cortical areas of the cerebrum. The nerve processes in turn are determined by motions in external media (undulatory vibrations of the electromagnetic ether, of air particles, etc.) that have no resemblance to the sense data. It would follow that when I perceive all I really know is that I, as this present feeling, am having sensations, or that the present feeling feels itself. The ego is like a telephone girl sitting at the exchange and talking and switching, but never having seen wires, instruments or persons outside; or like a bank teller receiving and handling currency, but never knowing what it stands for in the commercial world. Thus we are led to a new form of solipsism.[6] If the girl or the teller know nothing about the telephone system or the currency system, then I fail to see what meaning they would find in doing their work. The girl would not know that she was a switch girl if she did not know what switches were for, and this she could not know without knowing about real selves at the other end of real wires.

In order to distinguish a patch of color or a feeling of hardness from a nerve process, and both from an undulatory vibration or a dance of electrons, it is necessary that we should know what nerve processes and motions in the ether mean, that is, *what they stand*

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[6] K. Pearson, *Grammar of Science*, 3d edition, Chap. 2, "The Facts of Science."

for experientially. A nerve process is either an observable fact, hence socially accessible, or it is a conceptual construct which has a social meaning and function. An undulation in the ether, or a dance of electrons, is in the same case. In so far as the physiological conditions of sense perception are observable, that means that they are verifiable social realities which are conditions of individual experiences. Since nerve currents, undulations of the ether and movements of electrons are not observable facts they are conceptual constructs which have a social function.

It is a fallacy to say that because, forsooth, some kind of physical motion may be a *sine qua non* of nerve processes, and nerve processes a *sine qua non* of perceptions, therefore perceptions are *mere phenomena* and the nerve processes or the physical motions are the real realities. Thinkers and experients are just as real as any other factors in this world. That physical motions are causal conditions of perception is true, that nerve processes are necessary links in the causal chain is true too; but it is equally true that a percipient organism is the centrally necessary condition of there being a perceived object, and that several like-minded and like-organed percipients are indispensable conditions for the recognizable existence of a perceived objective world. *The primary solid and enduring world is,* not the realm of motions, of colorless, soundless and odorless mass particles in the void, but *the world of actual and possible social or standardized experience,* and interpretation thereof.

It is not even the case that, when I perceive, I see only a patch of color in my private space [7] and that I suppose my percept to be private. I never could distinguish *my perception* from *yours,* and suppose anything private about mine, if I did not first believe that your experience and mine were *of a common object existing in a world of public space.* The recognition of a public realm of objects of experience is, both psychologically and logically, the condition prerequisite to the recognition of individual variations in the perception of parts of this world. Variations in perception, even illusions and hallucinations, refer to the common objective order of the space-time world. This objective order has a communal existence; it is the matrix of a world of selves.

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[7] As Mr. B. Russell supposes, *cf. Our Knowledge of the External World,* Lectures iii and iv.

2. Kantian phenomenalism differs from sensationalistic phenomenalism in holding that the world of human experience is not the world of things in themselves; not merely because the nature of things is discolored or transformed by passing through the disturbing media of human sense organs; but, more especially, because the mind must first organize the chaotic sense material into the world of knowledge by the application of forms of synthetic thinking—space, time and the categories, such as causality and substantiality—before there can be any recognition of an objective world. These forms of synthesis transform the chaotic manifold of the senses into things, thus introducing into the sense-material various *relations of order,* such as unity, causal sequence and interrelation, substantiality. Kant, like most other philosophers, assumes that he knows that there are other selves and never explains or justifies that knowledge. In short, he assumes human society without further ado, and makes the empirically or phenomenally real external world the world which exists in common for like-minded percipients and thinkers.

Now, besides the latter assumption which in some form is inevitable, Kant makes *two gratuitous assumptions.* These are: (1) that sensation, the raw material of our known world of phenomena, is a chaotic manifold; (2) that the forms of mental synthesis, which bring order into the chaos, and thus build up a physical *world,* do not correspond with the structural character of reality-in-itself. The second assumption is an inevitable consequence of the first and vice versa. There seem to have been two motives in Kant for these assumptions: (1) the influence of Hume's atomistic and impressionistic theory of knowledge. (Kant's doctrine of sensation seems to be derived from Hume's doctrine that our seeming world is compounded, by the principles of association, out of atomistic sense-impressions. This accounts for Kant's first assumption.) (2) The influence of the antinomies or contradictions involved, as Kant thought, in admitting the objective reality of space, time and causality.

But Humian atomism is psychologically false. There is no actual state or phase of experience, however primitive, which consists of atomistic sense impressions or particles of color, sound, shape, size, smell, etc., which are afterwards patched together into

percepts.[8] As for the second assumption, some other and less violent way can be found to escape the seeming contradiction in admitting that space, time, and causality represent true aspects of the real world order.

3. The dialectical phenomenalism of Bradley proceeds, by a critical analysis of things, qualities, relations, space, time, the self, and the subject-object relation in knowing and willing, to show that all these phases of knowing are involved in hopeless contradictions. The ideal of truth and reality is an individual whole, consistent or harmonious in itself, an all-inclusive, systematic unity, embracing all finite diversities in one perfect individual experience. All appearances are present in it and it is present in all appearances, but in different degrees. The absolute reality lives in all its appearances, and in it they are all *transmuted,* in various degrees, *into the harmony of the whole.*

We cannot tell what the absolute is like in detail, but we can know its general features for, in immediate experience or feeling, especially in love and æsthetic feeling, we have experiences which are one and many, unity-in-diversity. Bradley's phenomenalism thus differs from other forms in that he holds that, while thought does not give us a knowledge of reality in detail, it does tell us what reality must be like as a whole. It gives us the general outlines; thus knowledge points beyond itself towards a more perfect whole into which it is transmuted. Knowledge, in the sense of reflective thought, is not invalidated in its own sphere. It is incomplete, but good as far as it goes. Thought is immanent in reality; it grows out of immediate experience and its function is to render the latter more coherent and significant; but it can never apprehend the true and harmonious nature of the real, since it is always infected with duality. Thought divorces the "that" or immediate richness of sensuous experience and feeling from the "what" or meaning; it analyzes or breaks up the immediate existence which is concrete experience, and can never get the parts together into a perfect whole. The fate of reflective thinking in Mr. Bradley's system reminds one of Humpty Dumpty. I shall have occasion from time to time to consider this and other features of Mr. Bradley's doctrine and shall not discuss it here.

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[8] As James Ward has shown, knowledge develops as a progressive differentiation in a *continuum* of experience. See his article "Psychology" in the *Encyclopedia Britannica,* 11th edition, and *Psychological Principles.*

M. Bergson's whole philosophy rests on the contrast between the functions of intelligence and of intuition.[9] Intelligence is adapted to deal only with the inert, the solid, the homogeneous or spatialized; it is at home with matter; its model of procedure is geometry, the science of static and homogeneous spatial form. Reality is flux, duration, interpenetration, the creative movement of the vital impulse or life urge. The nature of reality is apprehended directly by intuition. "By intuition is meant the kind of intellectual sympathy by which one places oneself within an object in order to coincide with what is unique in it and consequently inexpressible. . . . To analyze is to express a thing as a function of something other than itself. All analysis is thus a translation, a development into symbols." [10] Thus analysis does not tell us what anything really is; to get the real and unique being or nature of anything we must have resort to intuition. But we have, or may have, an intuition of one being—our self. Therefore, in order to find the clue to reality, we must, by an act of intellectual sympathy or intuition, place ourselves within ourselves. Metaphysics is possible, that is, first-hand knowledge of reality is possible, only if symbols can be dispensed with. This can be done if one begin with intuition of oneself. "No image or concept can reproduce exactly the original feeling I have of the flow of my own conscious life. But it is not even necessary that I should attempt to render it. If a man is incapable of getting for himself the intuition of the constitutive duration of his own being, nothing will ever give it to him, concepts no more than images. Here the single aim of the philosopher should be to promote a certain effort, which in most men is usually fettered by habits of mind more useful to life." [11] These habits are the intellectual habits of measuring and operating on solids. Thus, for M. Bergson, knowledge of reality is reached at all points by interpreting it in terms derived from the intuition of oneself as a being which is a continuous creative advance, a flux in which all its elements interpenetrate; which is all at once, "variety of qualities, continuity of progress, and unity of direction." [12]

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[9] The clearest and most concise statement of M. Bergson's theory of knowledge will be found in his *An Introduction to Metaphysics*, translated by T. E. Hulme, from which I quote. (There is another translation entitled *An Introduction to a New Philosophy*.)

[10] *Ibid*, p. 7.

[11] *An Introduction to Metaphysics*, pp. 15, 16. [12] *Ibid.*, p. 15.

M. Bergson assumes that whatever is real is, in some degree, like a self, therefore whatsoever kind or degree of knowledge does not acquaint us with some bit or vortex of psychical flux, some rudimentary or developed soul, is simply not genuine knowledge. If reality be mind-energy, then, since I know directly only my own mind-energy, the intuitive act by which I possess this self-knowledge is the only kind of knowledge worthy of the name. Therefore neither geometry nor any science which uses geometry gives us knowledge; in order to know reality all I have to do is to enter within myself by intellectual sympathy; having learned to know myself, I must dilate or dilute this self-intuition and I shall know something about everything, since every thing is a bit of mind-energy or pure duration.

I find in this theory of knowledge Fichte and Schelling *redivivus*. *Die intellectuelle Anschauung* is poetized, dressed up in an attractive literary garb and furbished out with an array of scientific facts. I cannot grant the initial assumption that, because the knower is always an ego or individual, therefore all that he knows must be known in precisely the same way that he knows that he has a toothache or is in love; from which it would follow that everything really known or knowable must be like the ego. This is "malicious" philosophy, indeed. It is the "egocentric predicament" with a vengeance. It would seem an easy step, from the position that all that one knows is like one's ego, to the position that all that one knows as real is a part of one's ego. M. Bergson's theory of knowledge escapes none of the difficulties of psychological idealism or mentalism. It only appears to do so, because he assumes, in the spirit of physical dynamism or energetics, that the physical world consists solely of various rates of movement, of mobilities having a variety of tensions but no things that move; and because he assumes that our perceptions are condensations and frozen images of the labile mobilities. I do not understand how the intellect can have been developed as the most successful instrument for the adjustment of the vital impulse to materiality, if materiality be itself the frozen images produced by the intellect, and if this highly successful instrument so grossly distorts and petrifies the reality to which the individual bits of the vital impulse must adapt themselves in order to survive and prosper. Either the material conditions to which the intellect must adapt itself are presupposed, and the processes of perception and conception are

successful adaptations thereto, and therefore not distortions thereof; or else perception and conception engender illusions, and beings who act upon these illusions as true must perish. If intelligence so mangles reality that we can get a true glimpse of the latter only by looking within our own bosoms, how has it happened that the most intelligent animals have acquired the greatest powers of survival? I do not question the reality of what I see when I look within myself; but, if this be the only kind of reality, how comes it that I survive and grow in physical and mental stature by taking account of and adapting my life to a kind of thing that, on the face of it, seems to be quite other than what I find when I look within? If there be really no "other" than mind or psychical life in the universe, why the persistent seeming of an other? Why should minds grow by adaptation to this other? Fichte explains the genesis of materiality from the moral vocation of the ego. The physical world for him exists only as "the sensuous material of our duties," the shock or stimulus which is the occasion for the development of the rational will. But, if the material be only unconscious will, why should this occasion be necessary? For Fichte the material world is engendered by the will as a kind of punching-bag on which it may get up its muscle by becoming consciously rational. For M. Bergson the intelligence is developed by the vital impetus as a successful tool for adaptation to the material conditions of living; but matter, in turn, appears to be the by-product of the intelligence. The existence of matter is a condition of the existence of intelligence; but, intelligence, in turn, materializes life. This is perplexing. I cannot make out whether dualism is, for M. Bergson, merely a provisional starting point or an intractable feature of reality. Certainly he has failed to account for matter, just as Fichte did. All attempts to explain the genesis of matter are but idle and pretentious wordplay. Our conceptions of matter may become more dynamic and ethereal; but, if we think that we are deriving it from something immaterial we cheat ourselves with empty phrases.

I do not deny that our richest states of knowing are Intuitive Acts, in which we comprehend, in a synoptic insight or vision, organized or living wholes of data into which the results of discursive thinking have been absorbed. I do reject the wooden conception of intelligence which M. Bergson has, and the claim that instinct is superior to intelligence. It is true that dogs, birds

and insects do some things in ways that we do not understand; but, after all, compared to the animals, man's capacity for adaptation is indefinitely greater. When M. Bergson speaks of intuition as being instinct dilated by intelligence I do not know what he means unless it be immediate experience interpreted by reflective thought; if the latter be his meaning it would have been much less mysterious to have said so, but it would not have sounded like a mystical oracle.

I pass to a statement of my own theory of the place of knowledge with reference to experience and reality.

Knowing is not an affair external to the objects known. It is a transaction between a center of feeling, thought and action which is an immanent member of the real world and other items in the world. Knowing is a function of a conscious organism, in interplay with other dynamic entities, just as walking or eating are. An adequate account of what knowledge is cannot be given if one begin with the assumption that the individual, as knower, is shut up within his own psychical skin and can only get into touch with the real world by some sort of mortal leap of self-transcendence. Knowledge does not begin with an introspective examination of subjective states "sicklied o'er with the pale cast of thought." It is only the complete failure of belief and expectation that leads to such a condition of mind. Doubt has cognitive value as the prelude to gathering oneself together and taking a fresh start at grasping the meanings of things. The mind is a function of the world. It is a live focus of reality, an organized center in which reality comes into active awareness of its own modes of behavior. Since the percipient organism is an individuated expression of the world's life, the qualities-in-relation that are cognized in perception are actual aspects of the real world.

The relation between the qualities perceived and the mind perceiving them is one of immediate and partial identity. Images and concepts blend with perception; and images and concepts represent or stand for possible immediate experiences; actual knowledge is always a fusion, in varying proportions, of immediacy and mediacy. To know is to be conscious of, to apprehend in *meanings,* the linkages of things. Awareness is awakened, and developed into increasing awareness, by the stresses, the strains and conflicts, the urgent problems in the living energies of existence; and these stresses or problems of living existence are located,

interpreted and resolved through awareness. Truth is the organic interdependence of subject and object, and this is always the partial consciousness of a dynamic relational whole or complex. The real world is a systematic unity of living experients and experiences. Each is a function of the other. Eliminate either and the other vanishes into the limbo of the unknowable. Knowledge is that function of the real world operating in thinking organisms by which the organism becomes aware, in increasing detail and extent, of its own qualities and the qualities of its environment in their mutual relations—to the end that there may be "more life and fuller."

Modern epistemology, from Descartes and Locke down through Kant to those who maintain to-day the possibility of an independent science of epistemology, has been vitiated by the covert "psychologistic" assumption that the business of knowing, all the way from perception to the finest-spun speculation, is a purely theoretical or contemplative gazing at, or reflecting of, a reality different from the knower and set apart from his life. It was forgotten that a knower shut up within himself would not only cease to know, he would cease to be. Hegel, of course, broke through the vicious circle and escaped the artificial maze created by the false assumption that the mind is shut off from reality other than itself; but, owing to the persistent influence of Locke, Hume and Kant, philosophers have kept on pondering on how to liberate the knower from the prison cell of his own subjectivity; by this auto-hypnosis, worthy of the Hindu mystic who reaches Nirvana by fixation of his gaze on his navel and the repetition of *Omi mani padme hum,* they have produced a mass of verbiage and brought philosophy into disrepute with the healthy-minded.

Lately, the biological conception of the constant interplay of organism and environment, the pragmatic and behavioristic movements and the influence of Bergson and the realistic movement, have aided in the delivery of philosophy from the impasse of subjectivism. As Hegel truly saw, thought (in the large sense) and reality must be in principle identical, since thought is a bit of reality become aware of its relations. This does not mean that the individual can excogitate the world out of his private consciousness; such an enterprise only reveals the emptiness of his private selfhood; it means that knowledge is attained by the individual's submission to the discipline of the factual order. Since the think-

ing organism is a product of the world, perception and thinking are instruments of successful adaptation and enjoyable intercourse with the environment. But to assume, as Bergson seems to, that since perception and intelligence are instruments of practice, therefore they do not reveal the really real, is to betray the influence of subjectivism; just, as on the other hand, to narrow the scope of knowing to mere overt action, excluding contemplation and æsthetic enjoyment, is to take a very parochial view of thought.

Thought does not come at immediate experience from without. It does not descend upon the latter from a rationalist or *a priori* heaven, nor is it born by a mysterious parthenogenesis from a virgin experience barren of meaning and relational structure. No bit of the crudest experience is wholly devoid of relations. The various types of relationship—likeness and difference, identity and diversity, spatial and numerical relations of order and magnitude, temporal succession and simultaneity, cause and effect, value and individuality, the discovery of which is the work of thought—are already embedded in the texture of immediate experience. The latter is from the outset of its career implicitly relational or orderly and significant. If it were not so the foreign importations of reflective thinking would not result in coherent and workable meanings, honored by the actual course of experience. There would be a deadlock between the demands of reflective living and the actual world of fact. Thought is the self-adjusting function of conscious individuals by which actual experience is ever being more fully interpreted, harmonized, and enlarged. Thought shoots forth at critical points in the lives of selves as an instrument for their development and self-maintenance.

Thus thought, the interpretative function of personal experience, and knowledge its product, do not *in principle* or character transcend experience. The reflective interpretation of experience may, and does as matter of fact, often require that thought go beyond actual experience in the interest of the latter's rational fulfillment or harmony. But this going beyond immediate and individuated experience is not a passage into another order of being. Our conceptual interpolations and extrapolations must be consistent and continuous with the experienced reality if they are to have meaning and efficacy.

In perceptual knowing the knower is cognitively one with the objects of his knowledge, although as practical agent or emotional

center he may have a very different character and existence from the objects with which his aims and emotions are connected. We do not know perceptual reality through the intervention of a *tertium quid* in the way of sensations and ideas interpolated, and constituting a veil hung between our minds and the real objects. Parts of reality, namely the perceptual reality of the external world, our own felt existence as selves, and the existence of our neighbors' bodies, we know directly although but partially; and in thus knowing are in immediate communion with them. Other parts of reality, namely conceptual reality or those logical interpolations and completions of empirical reality which constitute matters of rational belief about reality we believe to exist because of their consistency and continuity with empirical reality.

For actual experience is a continuum in which the felt existence of the self who has the experience is central, a single whole with distinctions and relations internal to it. It is always some sort of system. It is never, at any stage in the life of the experient and in the growth of his field of experience, a chaotic manifold of sensations.[13] The central item in the continuum, for the individual experient, is his own body. His own skin is usually the most significant boundary line in his experience, for inside it are feelings of desire and aversion, restlessness and quiescence, uneasiness and satisfaction, pleasure and pain. Through the doubleness of the sensory experiences of his body and the constant union of these double sense data with affections or feelings, his own body, and later his psychical selfhood, is cut out from the rest of the world. *It is in terms of behavior or interaction between his own body, and other bodies, animate and inanimate, that the growing individual learns to discriminate between himself and all other things, between living and nonliving bodies, and between persons or conscious, thinking and willing beings, and things that are not persons.* In early thought we do not find the distinction clearly drawn between the animate and the inanimate, or between persons and animate beings that are not persons. Even to-day it is difficult for the dog lover not to attribute the rudiments of personality to his dog.

It is not my purpose here to repeat the work of genetic psychol-

[13] Kant's conception of the chaotic manifold of sense, an inheritance from Hume's atomistic impressions, is an epistemological myth. In this respect James' "pure experience" is a truer concept of crude experience.

ogy in tracing the differentiation, within the continuum of the individual's experience, into self, other selves, and not-selves.[14] It is clear that the distinctions between these entities have developed together, and *pari passu*. The individual can have a clear consciousness of living beings only in so far as at the same time he has a clear consciousness of nonliving beings. He gains a vivid sense of the meanings of selfhood and personality in himself only through the give and take of social intercourse; that is, in so far as he recognizes other selves and persons, and interprets himself to himself in terms of their behavior, and themselves to himself in terms of his own feelings and meanings of which he knows directly.

The objective world of the developed mind is a socialized reconstruction of the continuum of primitive experience; a differentiating, that is, a contrasting and relating of physical things, other selves and myself in interaction, interpassion and thus in intercommunion.

The theory that I make my world by projecting or ejecting my sensations or ideas out from my head is an epistemological myth. As James Ward says, if this were true then everything would go into my head including the head itself. Avenarius says that the theory of ideas as immediate data existing in heads (which is the basis of the copy theory of knowledge) is due to man's attempt to picture to himself *how* things were present to another self.[15] I have no difficulty in knowing how things of sense are present to me—they are present in their immediate realness though but partially so. *But the other fellow's soul or mind is not one of my sense data.* In terms of the primitive soul theory, I may think of his head as containing ideas or images, just like the ideas or images that I have (in dreaming or reverie) of things not present to sense. The assumption is that the thing as he sees it is an image which is part of a series of images which constitute the furniture of his soul, but which he projects or ejects out into circumambient space. But the truth is that his experience is a continuum of interacting and intersuffering factors, a mode of organic behavior to which his

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[14] See, especially, Wm. James, *Psychology*, Vol. I, Chap. 10; and J. M. Baldwin, *Social and Ethical Interpretations of Mental Development*.

[15] I think Avenarius' explanation is insufficient. I have the same problem in connection with my own images of past events or objects not now present to sense. In the latter cases I assume that my "ideas" or "images" are mental copies of the reality. One does not need to consider how the other man knows to be led to the hypothesis that ideas are copies of things.

own body, is central, just as mine is. His world is immediately present to him, as mine is to me; because the relationships between our bodies and the other elements of our world are organic and *dynamical,* and the center of each man's world is the felt locus of the suffering and enjoyment of *the subject or ego himself.* Gradually there arises the distinction—still within the whole continuum of experience—between the *psychical centers* of energy and resistance, of feeling, purposive striving, meaning-seeking and finding (and to seek a meaning is to seek satisfaction of an interest or feeling just as much as to seek a meal is); the *physical centers* or clusters of energy; and, as the intermediating link, the *physiological acts* and *sufferings* through which the psychical and the physical worlds have intercourse. The distinction is always made in terms of behavior. A sense quality is a mode of behavior; just as a self's feeling of pleasure, pain, striving, averting, meaning, thinking, are modes of behavior. The continuum of the individual organism's experience is, at all stages of its differentiation and integration, a system of interacting centers of energy. The inanimate thing, the living body, the soul or person, is that which energizes in the unique way which is known as its *qualities,* or *ways of behaving in relation to the various other kinds of behaving complexes.* The object hitting, pushing, resisting, meeting or following another—these are comparatively simple ways in which complexes of qualities act and suffer. An object, feeling, observing, thinking, striving in relation to other like or different objects, is a comparatively complex mode of behavior, which we call a self.

But, thus far, we have not taken full account of the fact that each individual has his own continuum of experience, his own world. Are not all these private worlds? Is not each individual, as experiencing and energizing center, a windowless monad? No! for he cannot experience without energizing and he cannot energize without experiencing other beings. "Private" implies "public." The only private *thing* in my world is my body, and even that is not wholly private. You do not experience my feelings, but you experience parts of my body as a part of your world. Your physical world and mine are not wholly identical, for the reason that you experience the space-whole and the temporal and dynamical sequence from your unique position and the series of unique moments in your history, and I from mine, likewise. But our

worlds are not shut off from one another. If they were we could never recognize each other, communicate or coöperate. Physical reality is the system of moving complexes of qualities, continuous with each experience, that we must each take account of in the satisfaction of his interests. But, in dealing with physical things, and in satisfying our interests, we must often, to an even greater degree, take account of social reality—of other selves. The physical world is the spatial and temporal continuum in which we meet, act and suffer; that is, our individual experiences are believed to be similar aspects of the same continuum. The physical order, in short, is real not for me by myself but for me as a member of society. I know myself as a self only by contrast, conflict, partial agreement and coöperation, with other selves. I know my own body only in distinction from and interrelation with other bodies. But, of these other bodies, some are more like my own in ways of behaving than they are different from it. I am compelled to conclude that the latter type of body is associated with a sentient self. I could not know my bodily self as such except by contrast, comparison and interrelation with other bodies; but I could not recognize myself as psychical self except by recognizing other psychical selves. These exist inferentially for me through my experience of the behavior of certain bodies. To sum up, it is impossible that I should know myself, even in my utmost degrees of privacy, without knowing both another self and a public not-self. It is impossible that I should know a public, physical realm without recognizing other selves. It is impossible that I should recognize these selves without admitting the existence of bodies that are not my mere subjective states, and not the subjective states of some other self.

To sum up, knowledge of myself, of other selves and of a common physical world in which we meet, fight, coöperate, ignore, or love one another, and with which we strive or drift, are differentiations in the continuum of primitive experience which develop together and interdependently. The common or physical aspects of experience are socially accessible objects, but society is equally a property of the physical world. Thus self, other-self and physical nature are distinctions or differentiations within the objective continuum of experience; which is seen, through reflective analysis and synthesis, to be a system of interacting centers of energy, some of which *feel* the interactions and thus are

feeling centers sufficiently alike to be recognized as having an identical nature.

The self and the other self have each his own experience; but each knows himself in relation to the other; and the physical world is primarily the enduring though changing ground of the community of intercourse and experience between selves; the other ground is the community of nature in the different selves. Every self is a unique or private center of feeling; but a common world is recognized because selves recognize that they not only perceive but feel and act similarly. Feeling is the significance of experience for a sentient organism.

Is not an immediate acquaintance with other selves just as necessary an assumption to account for knowledge as an immediate acquaintance with some aspects of things physical? Yes: but in neither case does the immediacy of acquaintance exclude mediacy in the logical sense. The physical thing, which seems to be a wholly immediate and present object in sense-perception, is a blending of actual sensory experiences with memories and interpretations. It is, in large part, a construction of thought. This construction arises through the fusion of qualities present to sense with memory-images controlled by interest and association and with intellectual interpretation controlled by interest.

Just so with our knowledge of other selves. The basis of my instantaneous recognition of another self is a specific complex of immediate sense-qualities interwoven with relevant, and sometimes too with accidentally, associated parts of my past experiences of similar complexes, and previous interpretations thereof; it may involve too a novel constructive interpretation, a discovery of some qualities that I had not previously associated with a self. I am instantly aware of the other self; but that awareness is a blend of qualities present to sense with purposive interpretation, motivated by my present affections, interests, and aims.

Another self is for me a being like myself of which I must take account in the fulfillment of my own interests. It evinces by its sensed behavior, as interpreted by me, purposes that are like my actual purposes or like other purposes that I might have under other conditions; purposes that may coöperate or conflict with my own deepest interests. I perceive the activities of that complex of qualities which I call another self, and I read interests and purposes into those activities. I believe that being to be a self,

because it shows features of behavior analogous to my own behavior, actual or possible; which follow hard upon by feelings, interests, aims. It displays intelligent adaptiveness, varied signs of individuality, even unto dangerous passion. Therefore I say it is an individual which feels and thinks. I cannot help believing so. The deepest concords and the most heart-quaking conflicts in our affectional and purposive lives are engendered by the reinforcement and thwarting of our interests by other centers of action and resistance in the environment. Therefore our deepest instinct is to believe that these are selves like unto ourselves. I can only recognize the presence in another self of that which corresponds to feelings and purposes that I have, or remember that I have had, or imagine that I might have. On the other hand, my own individual and purposive life is constantly being quickened in feeling and thought, and stirred to action, by the cross-currents of experience which play between my self and other selves.

How does the distinction between the physical and the psychical arise? How does man come to think of an inner self at all? The first distinction made is between one's own body and other bodies. Because of the doubleness of sensory experience when one part of the organism is in contact with another part of the same organism, as contrasted with the singleness of sensory experience when the organism is in contact with an external body, the percipient's own organism is marked off from all other bodies. The first division in experience is thus between the bodily self and the world of not-self. The distinction between the bodily self or organism and the psychical self is a comparatively late product of human reflection. In Greek thought, for example, one does not find it made sharply before Plato. And even then the soul is identified with the natural life-principle, as it is in Hebrew thought until shortly before the advent of Jesus. In New Testament thought the distinction is made between the body, the soul or natural principle of sentient life, and the spirit or moral personality. In primitive thought generally the soul is the "double" of the body, a finer and more subtle material facsimile of the body, which it can leave and reënter; the soul is a shadow, a mannikin or image of the bodily self, a bird; especially it is *breath* (*nephesh, ruāh, anima, spiritus, psyche, thumos, pneuma*). There seems to be no doubt that the belief in the dual nature of the self arose from a consideration of the phenomena of memory-images in

intimate association with pleasurable and painful feelings. Dreams of terror and delight, day visions and hallucinations with strong affective coloring, and so forth—in such states men saw the forms of the living and the dead, of relatives and strangers, of friends and enemies. Thus the flux of the conscious life appears more intimate and variable, freer of the limitations of time and space, than the stubborn and fairly stable flow of the external physical processes. Man's ordinary waking memory-images, too, were recognized as largely independent of the external world in their goings and comings. The realm of these relatively independent and controllable images and the associated affections becomes the *soul or psychical self*. The development of reason and conscious self-control brings about a belief in the nonmaterial or spiritual character of the soul. The subject's own body is then conceived to be intermediate, in its responsiveness to feeling and purpose, between the inner purposive procession of images and affections and the more stubborn external world. The psychical self is regarded as the inner pulse or continuously felt process which is dominated by affections, ideas, interests and which can feel itself as such.

The self-awareness of the qualitatively unique character of the inner flux is the condition of full self-consciousness. And, the emergence of reflective consciousness or self-consciousness is a unique event, the expression of a unique principle. The distinction between the realm of images and the realm of external bodily perceptions is a stage on the road to the discovery of selfhood. Intercourse with other selves stimulates the discovery of self. But these conditions do not account for the manufacture of a self out of purely physical materials. Only the reality of selfhood accounts fully for the belief in one's self and other selves.

The validity of knowledge cannot be accounted for on any other presuppositions than these: (1) that the mind knows some features of realities immediately; and (2) that some of these known realities exist independently of the individual's acts of partially knowing them. One must reject the argument that, since immediate actuality is matter of conscious experience, therefore one can have no knowledge of anything but facts that exist *in* some consciousness. If, on the one hand, the specific nature of the experient is implicated in the character of the experienced object, on the other hand it is an assumption without warrant to

say that the nature of the experienced object must be always distorted by becoming object of experience. Consciousness may be sometimes pellucid.

The variations in sensory experiences among different observers, in regard to what is believed to be the same object, and the variations in the same observer's experiences of what he believes to be the same object, in different times and situations and through the avenues of different senses, render absurd the assumption that all percepts of the same object are identical in quality or existence. It is an old story in philosophy that the variations and conflicts among sense perceptions, together with the fact of sensory illusions, require the separation of *perception, as appearance,* from the *real objects.* If the being of things consisted wholly in being perceived, there would be as many distinct things as there are differing percepts for all actual percipients. Every individual would have a world of his own. At every successive moment in the individual's sensory experiences there would be a ceaseless succession, an endless number, of differing worlds. If the table is just what I perceive now and nothing more, then probably precisely the same table does not exist in any two successive perceptions of mine, and the number of successive tables must be in proportion to the number of observers multiplied into the number of their percepts. There are as many things as there are distinct percepts. Things are annihilated and created anew every moment.[16] What then is the one really "real" table? If it be a wholly unknown entity, we are impotent to define its relation to our perceptual tables, and there is no sense in calling it a table. It might just as well be called the "real" polar bear. The absolute idealist tells us that the "real" table is the content of an all-knower's all-inclusive experience. Perhaps it is! Who knows? But since we are given no information as to the relation between the multitude of perceptual tables and the absolute's table, we are no better off than we were when we started. *Since the absolute includes everything, we know not how, it explains nothing.* We need a more modest principle for knowledge—one that does not treat us with high disdain and that we can use in the day's work.

Any part of the empirical environment, of which a self must take account in order to know and to act, is a real object. And

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[16] Hume.

the same principle holds good for the individual self's own nature or character. Any part of its inner or privately experienced nature of which the self must take account in order to carry out a purpose, to satisfy an interest, is real. For example, the young man, setting forth upon the career of a scholar, must take account of the fact that he cannot help falling in love. He may find that this fact and its consequences are "harder" facts than the table. Reality for us is what we must take into account in our thinking and acting, and for the satisfaction of our interests.

To come back to the table, the "real" table is a logical construction, an entity or thing necessarily conceived as the active center or bearer of manifold possible qualities which, in perception and action, I cannot avoid recognizing. If one say that the table is simply inert, that it resists and sustains certain of my activities, I remind him that inertia or resistance means activity counter to another being's activity (John Locke suggested that the essence of matter is *passive power,* but he failed to observe that passive power is a concept relative to another's activities). The self, both as knower and agent, is a member of a complex dynamic environment, the active and passive relationships of whose elements are subject to continuous change. Differing perceptions are held to refer to what is existentially the same object, provided there be sufficient continuity and coherence in the experienced qualities and their groupings for selves to act on and suffer or perceive the object in a manner that is continuous and coherent. So long as I and other selves can carry out similar purposes and get what we agree, in terms of our conventional linguistic symbols and pictures, to be continuously similar perceptual reactions we believe that we are dealing with the same table. In brief, if I am alone, the table is the same object for me so long as I can *do* similar things with it and *suffer* similar things from it. If you are with me and we agree, through our media of communication, the table is for both of us the same. If we disagree completely then either you are crazy or I am, and some other selves must settle the matter.

Sameness of objects is a socially useful convention; a standardized object is the "real" object. Thus, in order that it be real in an intelligible sense, an object does not need to remain absolutely the same through a lapse of time, or to observers in different situations and conditions. It is enough if there be recognizable and intelligible continuity and coherence in the qualities and relations

experienced and logically inferred from the experiences. A real object is definable as anything which exercises constraint upon us in our perception, thinking, and willing; and which, in this capacity has some degree of continuity, empirical coherence, and social cognizability. Reality as a whole is a vastly complex system of active centers of qualities in relations of which at any time and under any circumstances, we perceive, act on, or are conscious of being acted upon by, only a fragment.

The objects of perception then do not exist, just as they are at any moment perceived, apart from the act of perception. No finite object is self-complete. No perception by a finite subject can be self-complete. Relations are as real as qualities. But, as partial apprehensions of the actual qualities of the object in some of its relations to the knower and to other qualities of the environment, perceptions are thus far valid. The perceptual object is a true aspect of the real object in dynamic relation to a percipient.

There is *empirical continuity* between objects immediately perceived and others related to them in the context of reality. There is *symbolical continuity* between representative images and concepts of objects and these objects as immediately sensed; and there is *logical continuity* between objects experienced and other objects whose existence is implied in actual experience, but which are not now and may never be objects of any finite self's experience. For example, if the electron, as defined in the electronic theory of matter, is the assumption in regard to the ultimate constitution of matter which best agrees with all the facts of immediate experience and with all the other generalizations and inferences intermediate between the perceptual facts and the conceptual nature of electrons, then the belief in electrons is the valid belief in regard to the ultimate constitution of matter. If the belief in the existence of electrons is not the only theory of the constitution of matter which is a logically coherent consequence of the empirical character of physical things, then the existence of electrons remains hypothetical. By contrast, the existence of the earth's interior or of the other side of the moon is not hypothetical in this sense. *No other belief is consistent with the facts.*

Naïve realism errs in assuming the complete identity of the particular object with the content of a single perception, and in believing that particular objects are cognized as such in isolation from other objects and without consideration of the percipient's

own individual situation and constitution. In truth we never know a merely isolated particular object. Knowledge of anything, however vague and rudimentary, is apprehension of a specific datum in a relational complex. Social realism, the position of the writer, admits the distinction between the object as logical construct, that is as rational and public ground for the varying perceptions which refer to it, and the percepts as series of aspects of the object; and holds to the reality of nonexperienced entities as logically implied in the continuity and coherence of experience. It holds that valid knowledge is always in some degree a matter of the determination of the given or datum of sense in and through its position and connections in a relational complex. It insists on the logical structure of reality as a system of meaningful elements in a totality.

APPENDIX

THE NEW CRITICAL REALISM

Since I have called the doctrine of knowledge expounded in this work "Critical Realism" it is in order to state briefly wherein it differs from the ingenious and original doctrine advocated in the volume *Critical Realism* by Durant Drake and others. There are several important differences between the standpoints of the several contributors to that volume. I have not space to expound or examine these differences.[17] I shall limit my treatment to a brief discussion of the most characteristic features of the doctrine, especially as expounded by Professors Drake, Santayana and Strong. All the writers seem to be agreed in distinguishing three factors in knowledge: (1) the mental or psychical state; (2) the meaning, intent, "character-complex" or "essence," which is the datum or "given"; (3) the real object which is not given, but affirmed as the existent which the datum or essence *means*, and in genuine knowledge means correctly. The most original feature of the general doctrine is that the datum or essence is always a universal, a *what*, without locus in space or date in time. The mental state has temporal date and the object in perception is in space, since an existent must always have a temporal, and may also have a spatial locus. Messrs. Drake, Rogers, Santayana and Strong deny that the datum is a mental complex, whereas Messrs. Lovejoy, Pratt and Sellars affirm that the datum is

[17] See the careful review of the work by Professor R. B. Perry in *The Philosophical Review*, Vol. xxx, pp. 393–409.

the "character" of the mental state of the moment; thus for the latter the datum is the "essence" both of the object known through it and also of the mental state which is the "vehicle" of the knowledge. I am unable, on grounds given elsewhere, to admit the reality of essences which have neither mental nor physical existence. An essence or universal is either a concept existing in and for a mind or it is a physical relation; it may be both, as when one has a correct concept of a physical relation or "law"; it may be mental in two senses, as when a mind entertains a concept of value or purpose which actually functions in minds. An essence which is neither an existing thought nor a physical law seems to me to have no real being, either in the heavens above, the earth beneath or the waters under the earth. It does not even "subsist" since there is nothing on which it can subsist, unless one invoke a Platonic realm of ideas (in the traditional sense as eternal existents).

If the datum is the "character" of the mental state in knowing then the latter is identical with the existent known, and what is known is a mental state; we are not delivered from mentalism. Surely a character has no existence except as the character of some thing. Either the object known is mental or physical or a neutral entity. I have never, to the best of my knowledge and belief, met a neutral entity. Consequently I do not know what such an one may be, except that it cannot be like any thing that I have ever known.

Furthermore, I am unable to understand how a universal "essence," devoid of place or date, gets attached to an unperceived object in such fashion that through it the latter is identified as owning the universal in particularized form, here and now or there and then. If the essence be a universal which does not exist and the particular object which owns it (or, perhaps, is owned by it) is not in any respect immediately perceived, how is the connection effected between them?

In the case of my knowledge of past events, or of objects not present to sense but believed to exist now, I distinguish between the mental state which is a momentary existent and the object which the mental state means or refers to indirectly; but my affirmation of the occurrence of past events or of the contemporaneous existence of objects not perceived is an inference from memory, record and testimony. In all such cases knowledge is clearly inferential or indirect; and the mental state of knowing is representative of objects not given; what is given is the feeling of familiarity with the recognition of nonpresence to perception which marks the memory state, or belief in the trustworthiness of record or testimony. The critical realist

doctrine transforms the mental attitude of memory or interpretation of credible record and testimony into "essence." He inserts the belief-attitude as a *tertium quid* between the mental state and the object not present. In the case of perception I am so naïve as to be unable to find the three factors which the new critical realists find. I find a consciousness of my mental attitude or act of attention and the group or "congeries" of sensed qualities which is, for me, the object. These qualities are not essences or universals or character-complexes having no locus in space and time. They are particular or determinate, here-and-now existences. They occupy a given spatial contour at this moment. I am aware, on reflecting, that I do not immediately perceive all the qualities which I attribute to the object, but I know too that I would not attribute any of the qualities to the object if I were not in the immediate presence of some qualities of sense. I cannot help regarding these qualities as having a non-mental existence. My desk, I say, is green. But my friend says that he sees it gray. What is its real color? I answer that to him it is gray and to me green, because of the differences in the structures of our respective visual apparatuses, and these differences are constituent parts of the real world. My friend and I do not see the desk as having the same color, but we do perceive it as having the same identical place, contour and texture. If we disagreed in regard to all these items we would not see the same desk in any sense, and we could not even disagree in regard to its appearance. There must be a minimum of agreement in order that there may be disagreement. For common sense the real desk is the desk as it appears to the normal percipient under normal, that is, usual conditions. It is the community of perceptual qualities and reactions that constitutes the practical test of realness. The objective world of common sense is the socially accepted series of aspects or appearances of the physical order to normal percipients. In one sense whatever anybody perceives in an object is real—namely in the presence of that individual percipient with the sensory and mental equipment and history that is his. There is no other standard that is final, when dispute arises, than the agreement or community established through communication of opinion and similarity of reaction to the object. The doctrine of essences, given but not existing, distinct from but affirmed of the object seems to me a superfluous fiction.

What then is the object in the absence of any percipient? It is the group of qualities or activities which in the presence of percipients give rise to the perceived qualities. I understand by the physical in itself just that complex of motions of physical entities which are inferred by science to exist as the nonmental conditions of there being

percepts. In this sense our bodies are parts of the physical order. What these entities are science is continually trying to determine. It is a scientific question. Philosophy is concerned with it chiefly when the physicist turns metaphysician *à outrance* and asserts that there are no percipient minds and that the physical conditions of perception explain away the percipient.

Epistemological idealism or mentalism, a better term since idealism also means the doctrine or belief that the universe is controlled by ethical or spiritual values, a doctrine which, as will appear later, has no logical connection with mentalism or even with pan-psychism, has been subjected to many criticisms in recent philosophical literature. I single out for reference—G. E. Moore, *"Refutation of Idealism," Mind, N. S.* 1903, Vol. xii, pp. 433–453; the coöperative volume, *The New Realism,* especially the essay by R. B. Perry, "A Realistic Theory of Independence," and the volume by Perry, *Present Philosophical Tendencies;* finally, the most thoroughgoing critical examination that I know is Oswald Kuelpe's *Die Realisierung,* Volume I. Volume II of the latter has just appeared. It is unnecessary here to review all the criticisms. I shall have occasion to make further criticisms of various aspects of mentalism in connection with other problems. Among the attempts at metaphysical realism may be mentioned; *The New Realism, The New Rationalism* by E. G. Spaulding, *A Study in Realism* by John Laird, and especially the monumental work of S. Alexander, *Space, Time and Deity.* The present writer has reviewed the latter work in *The Philosophical Review,* Vol. xxx, pp. 282–297.

CHAPTER VI

APPEARANCE AND REALITY

The only materials that we have for the construction of a theory of reality are actual experiences plus the funded meanings of previous experiences. Experiential reality is a duality-in-unity, consisting of subjects and objects of experience. And the feeling, thinking and willing of the subject are just as truly matter of experience as is sense perception. Thus to attempt to construct a theory of reality and to leave the subject out of consideration is like attempting to produce the play of Hamlet with the Prince of Denmark left out. The whole business of metaphysics is just to determine in outline what must be the general character of a coherent world order as implied in the meanings of actual experience. The total concept of reality must include features that go beyond actual experience, but that are implied in the latter as principles for interpreting and completing it.

Actual experience is very complex. It includes things and events in space-time relations, and the subject's own feelings, thoughts, valuations, purposes and efforts. The feelings, thoughts, valuations and purposes of the individual subject are not immediately accessible to direct observation by other subjects; therefore they are called "subjective," but they are indirectly known through the behavior of their subjects. Objects experienced in space-time relations are held to be public or common objects perceivable by other knowers, and are therefore called physical objects. Experience is always in process. Subjective states—feelings, images, judgments, valuations and purposes—change; so do the objects of public or physical experience. Thus the consideration of all objects of experience involves temporal relations. It is not so obvious that all objects of private and individual experience involve spatial relations, although I think that ultimately they do. But the discussion of the latter question may be conveniently postponed to a later stage in our inquiry. The distinction between

physical objects and psychical objects is thus equivalent to the distinction between things perceived as having publicly accessible sensory qualities; and desires, enjoyments, sufferings, images, concepts, valuations and purposes, as contemplated and appreciated or willed by the individual self. The minimal meaning of a self is that it is a center of feeling, thought and volition, which can be aware that it feels, thinks, values, and wills.[1]

How we come to make the distinction between psychical subjects or selves and physical objects has been discussed in the previous chapter. We saw there the consciousness of being a self or subject of experience arises through a gradual process of differentiation between mental and physical objects and that this process takes place in social intercourse with other selves as well as in the individual's direct dealings with nature. The distinction between the mental and physical is built up through the demands made, and the responses received, in human intercourse with other selves and nature. The physical world becomes recognized as the common and more or less constant medium of human intercourse. Self, other self and a common world in which self meets its other and enjoys with and suffers from the other, are the irreducible elements in man's construction of a universe. Of course, if an individual insists that his ego is the cosmos one may not be able to convince him that he is wrong, but one may properly point out that to thus insist on the identity of his ego with the cosmos is to perpetrate at once a tautology and a contradiction. For in making the assertion he is assuming another ego to make it to, whereas the assertion itself denies the existence of another ego. If he persists in his insistence probably he will finally arrive either in the mad house or in prison.

The development of experience is triadic. The increase in content and organization of the individual's experience is, in one aspect, the integration of his personality, in wealth and harmony of content and action; in a second aspect, the corresponding in-

[1] One of the principal motives for the behavioristic standpoint in psychology is undoubtedly the desire to get rid of the elusiveness and privacy of subjectivity, and thus to make psychology an objective science, using the common physical methods of observation, experiment and measurement that are employed in the physical sciences. Whether in so doing extreme behaviorism in psychology does not throw out the baby with the bath we need not here consider. This matter will be discussed more fully in Book iv, "Personality."

tegration of his social relationships; and, in a third aspect, the integration of the common or physical world. I shall now consider the grounds on which a sharp contrast is set up between appearance and reality.

If all actual experiences are real what is the place of erroneous experiences and beliefs—of illusions, hallucinations and all the errors in regard to fact and theory that one finds in life and history? If experiences are real does it not follow that the sun moved around the earth until the Copernicans persuaded some Europeans to believe the contrary in spite of appearances, that the earth and living species were created in six days until evolutionists succeeded in persuading some people to the contrary belief? That things are not really as they seem, that experience is an inconstant, inconsistent and deceptive flux; and that the real reality must be some sort of ever-abiding, harmonious and perfect order or being behind or beyond experience—this is a discovery which seems to be the very threshold of wisdom. The contrast between the muddy, tortuous and treacherous stream of experience and the clearness, fixity, perfect orderliness and reliability of the true reality has been a main motive in the history of thought from the Vedanta philosophy of India and the philosophy of Parmenides, the Greek, down to the present time. All the higher religions assume the ultimate reality of One in whom is neither variableness nor shadow of turning. Even those philosophers to-day who, like Mr. F. H. Bradley and his school, insist that the ultimate reality must be a perfect experience, argue that all the experiences and beliefs of the human self are untrustworthy appearances because inconsistent, incomplete and in flux. Physical things and their qualities, space and time, motion and change, causation, purposive activity, and even the self, goodness and truth, are self-contradictory appearances. No one of these things can stand on its own feet; every one is transitory, forever seeking to be what it is not and what it cannot become without passing beyond itself and being transmuted into something other than it is. Every one of these aspects of finite experience and belief, from an orange and its qualities to a self in moral volition and truth seeking, means to be what it is not and never is what it means to be. No truth is wholly true, except the truth that no truth is wholly true. Everything in our experience, every category of ordinary thinking, every practical idea, runs out endlessly, when we examine it analytically,

into its opposite or other. We can neither think a sensuous thing as the unity of its qualities nor as different from its qualities. Motion and change are inconsistent because there must be something which moves or changes, but if there is then it cannot change or move without ceasing to be itself. We cannot think causality or activity without at once asserting that causes and effects both are and are not continuous. Space and time must be affirmed to be at once endlessly divisible and extensible and to involve absolute bounds, beginnings and endings. The self is ever fluctuating, the boundaries between self and not-self are ever shifting, and the self is thus forever dependent on the not-self. Ideas and ideals refer to a reality other than themselves and if they were identical with it they would cease to be ideas and ideals. The absolute reality must be a perfect individual whole, eternal, utterly harmonious with itself, the perfect union, in one seamless whole, of meaning and existence, a coherent and stable organization in which all that is finite and transitory is absorbed and transmuted. It must be beyond all the experiences that human beings have and yet be a perfect experience. It must be beyond all the truth that human beings can find, all the good that they can will and aspire to, all the beauty that they can create or imagine. All human experience, all human vision of truth, beauty and goodness, must pass into the eternal perfection of a changelessly complete experience.[2] Each of the appearances, if considered as a whole in itself, is more or less contradictory. Reality is a perfect, systematic whole, an eternally harmonious individual. On the other hand reality is present in all the appearances. "Reality, then, being a systematic whole, can have no being apart from its appearance, though neither of them taken singly, nor yet the sum of them thought collectively, can exhaust its contents." [3] "And though no appearance is the whole of reality, in none of them all does the whole of reality fail to manifest itself as a whole. The whole is truly, as a whole, present in each and every part, while yet no part is the whole." [4] The appearances differ in degrees of systematic unity, or individuality, and the degree of individuality

[2] The best brief statement of the arguments for the above view is perhaps that of Mr. A. E. Taylor, *Elements of Metaphysics*, Book ii, Chaps. 1–3. The whole of Mr. Bradley's *Appearance and Reality* is a brilliant piece of argumentation for the same doctrine.

[3] Taylor, *Elements of Metaphysics*, p. 106.

[4] *Ibid*, p. 106.

which any appearance possesses is the measure of its degree of reality; that is, of the degree in which it manifests or expresses the character of the whole. The whole, as perfect system, or harmonious individuality, is present in every part but not equally so. For example, a constellation of electrons, a sentient organism, and a well-organized human mind freighted with thoughtful experience and insight, all have some degree of systematic unity, but the human mind in question has a much higher degree of individuality than the constellation of electrons; and therefore is a much more adequate manifestation of reality, that is, has a much higher degree of reality. But all appearances, from the least to the greatest, are necessary to the perfection of the whole. "In the sense that it is the same single experience system which appears as a whole and in its whole nature in every one of the subordinate experience-systems, they are all alike real, and each is as indispensable as every other to the existence of the whole. In the sense that the whole is more exclusively present in one than in another, there is an infinity of possible degrees of reality and unreality." [5]

And the degree of individuality, and therefore, the degree of reality, which any appearance has, depends: (1) on its richness of contents or its comprehensiveness; (2) on its degree of internal unity or harmony. These two features of individuality or reality are complementary. It follows that we are nearer the final truth in regard to the nature of the perfect individual whole of reality when we think of it as an organism than when we think of it as a mechanical aggregate, and still nearer the final truth when we think of it as a mind than when we think of it as an organism. And, if a society be a more comprehensive and better organized individual whole than a mind, then we would be nearest the final truth about reality in thinking of it as a perfect society. On the other hand, from the standpoint of what we may call Bradleyan idealism the perfect reality could not be a society for the simple reason that a society, as such, has not and is not a single experience.

I shall now examine critically Mr. Bradley's doctrine. It is obvious, without a prolonged dialectic, that if any finite thing be set up as isolated or self-complete, it becomes self-contradictory. Anything finite is real only in relation to others. Everything finite is involved in a complex network of relationships. My pen-

[5] *Ibid.*, p. 109.

cil, for instance, is a complex of sense qualities—cylindrical shape, yellow color, woody texture, specific density, diameter, length, and spatial position. Every one of these qualities, and therefore all of them taken together, involve series of relations to other qualities, from which they differ and which they resemble in various degrees of kind, extensive and intensive quantity, cohesiveness, density and duration. My pencil, also, originates and passes away in teleological and social series of relations. It is quite true that if we set up space, time, causation, activity, purpose, or even the self, yes, even truth or goodness, as abstractions existing in and for themselves, we become involved in self-contradictory statements. The human self is complex, changing, in part dependent on its own body, on other selves, and on physical bodies for what it is and becomes. It is equally true that truth is relational in two senses: (1) it is the relation between a knower and the objects of his knowing; (2) no single object of knowledge is known or knowable in isolation. Goodness is relational in two senses: (1) it is the relation between a human value as willed and the objective conditions of successful volition (the actual nature of the agent is a part of the objective conditions); (2) no single willed or accepted value exists in isolation. Certainly, then, *the ultimately real is the whole,* and *the whole must be some sort of system.* Whether it is one timelessly perfect individual or harmonious experience will be discussed later. Suffice it to say now that I do not so regard the totality of the real, for I cannot form any clear and consistent conception of reality as one absolute super-relational, nontemporal harmony of experience not owned by any self; and if there be a perfect self it must exist in relation to other selves; therefore it cannot be the totality of the real. Reality *at its highest* level may be a society of selves, but it cannot be one self.

Everything real must be part of the total universe of reality. No finite thing or event exists or occurs in complete isolation or self-dependence. The doctrine of extreme pluralism—that reality consists of an atomistic chaos of independent reals—scarcely merits extended refutation. Whether anything can exist out of relation without being known is a vain question. The more we know concerning the behavior of things in our world the clearer it becomes that "all things in one another's being mingle." The "nature" of anything cannot be independent of its relations. Many relations of a thing may be conceived that, from one point of view, or for one

purpose, are practically irrelevant or negligible, but, from other points of view, are relevant and important. It may be irrelevant to me whether a pupil has yellow hair or wears orange neckties, but if I were his haberdasher or his beloved these considerations might be very relevant. The assemblage of books, furnishings, writing materials, sporting tools, etc., in my study have no relevant relations from the point of view of a logician or a botanist, but from my point of view or that of the tax assessor their relations to me or to one another are quite relevant. Nothing can exist absolutely out of relation or above relation, except the whole universe; but since, by definition, the universe is the totality of related beings, to say that it is above relations is only to repeat, in somewhat misleading language, the definition of the universe as the systematic totality of related entities.

Why should we argue that finite things which are partial aspects of experiential reality are appearances only, because they are not self-complete and self-existent? Does any rational being suppose that they are? If taken for what they are, finite things are real though no one of them is absolute nor pretends to be. I can find no contradiction between an entity being real and being in relation. Empirical things and persons are not swallowed up and made to disappear when they are recognized to exist only in specific relations. It seems to me a perverse attitude to assert that only a Spinozistic substance, as absolutely self-dependent and self-existent, can be real. An absolute that climbs up the ladder of relations and then pulls the ladder up into its superrelational lair may be forever secure against assault; but, in so far as we human beings are concerned, it is unknowable, and we can hold no commerce with it. If all relations and finite experiences and attitudes are *transmuted* in this absolute, how can all the flames of passion, chaste and carnal, still burn *undisturbed* in it? How can degrees of reality and value belong, in the absolute, to finite beings and their experiences; since, so long as these latter exist, they are in relation, and are thus infected with contradiction and delusion; and, when they are considered to have found rest in the absolute, they have lost their relational character and thus have lost all that made them what they were? How can the absolute be absolute and superrelational, if it includes and lives in all its appearances? Logically it is as much dependent on the relational and transitory character of its various finite fragments as the latter are on it.

The relation between the absolute and its finite parts reminds one strongly of the economic system of the Scilly islanders who are said to live by taking in one another's washing. In Mr. Bradley's dialectics all empirical qualities and relations vanish in the endless process of a series of incompletable relations, which absorbs all empirical distinctions and forever chases itself across the stage in the vain effort to swallow its own tail.

I prefer to say that every fragment and aspect of finite experience is real when taken in its right relations. I admit that at any moment we do not know completely the relations of any finite and empirical reality; we do not know the total meaning of any reality. But what we have we have, and it is good for what it is good for and as far as it will go. The main features of experiential reality —space, time, causation, activity, novelty, or creative synthesis producing new results, effective volition based on valuation and choice; and therefore both physical change and volitionally initiated change, the organizing activity of life and mental selfhood or personality—all are real and none are absolute.

The very notion of reality is relative to both our experiences and our interests or purposes. For us, the absolute reality must be either that which enables us to adjust our interests to our experiences or that which prevents such adjustment. Thus reality means experience interpreted in its maximal totality and integrity. If all human experience be illusion, there is no point in calling it illusion. It is the only reality we have. A reality which did not really appear in our experiences would be both useless and meaningless—a non-entity.

The logical and psychological grounds for the distinction between appearances and reality lie in the so-called errors of the senses which are really errors of judgment; in the discrepancies between our beliefs and expectations as arising out of our judgments in regard to past experiences, our traditional and individual prejudices, the influence of other persons and of our own desires and fears. In all such cases what we do is to put an actual experience in the wrong context. Everything that is matter of experience is real in so far as it is taken for what it is, that is, taken in its right relations to other items of experience.[6] Everything sub-

[6] The pan-objectivism of the neo-realist is based on exaggeration of this point.

jective is of course real as matter of experience. Illusion and hallucination consist in putting experience in the wrong context. If, for example, I assert that there are spots on an immaculate table cover, whereas the spots are in my eye, the spots in my eye are alarmingly real. My error was in placing these spots in wrong relations in the systems of experience. Everything real is determinate. The determinate character of every real entity is determined by its own nature in relation to the natures of other entities. Nothing exists out of relation. The whole of reality is the totality of determinate beings in relations.

There are many varying degrees of individuality in things—from grains of sand and pebbles through crystals and the whole scale of living beings to the highest type of human personality. The existence of an ascending series of individualities is the basis of the doctrine that there are degrees of reality.[7] It is said that the self, although inconsistent, possesses a higher degree of reality than anything which is not a self. Goodness and truth are inconsistent appearances, but they possess higher degrees of reality, that is, have more of individuality and harmony, than do evil and error. The absolute is the perfect individual whole, and hence it manifests itself in some appearances more fully than in others—in a well-organized human person more fully than in a rat, in the social moral order of a highly civilized culture more fully than in that of a tribe of savages, etc. The measure of the degree in which any appearance manifests the absolute is the degree of its individuality.

The logical basis of the doctrine that the degree of individuality coincides with the degree of reality is the assumption that individuality, the supreme standard of value, is the final criterion of reality; in short, that the idea of value or perfection is the key to the nature of reality.[8] Now, no doubt the assumption that the standard of value is the standard of ultimate reality, that the being of highest value must be most real, is one that the philosopher inevitably makes.[9] If there be an ultimate unity of all other values—harmonious individuality, eternally perfect whole of

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[7] *Cf.* Bradley, *Appearance and Reality;* and Bosanquet, *The Principle of Individuality and Value, passim.*

[8] This is the newest form of the ontological argument.

[9] Every great philosopher from Plato down to Royce has made this assumption.

meaning, in which all lesser values are integrated—it will be the most weighty and consequential problem that a philosopher can engage upon to consider whether this ideal unity of all values be also the supremely existent or reality. But there are two distinct questions here: (1) What is the logical or metaphysical structure of reality? (2) What are the values of the various forms or structures of existence? More briefly: what are the general features of reality, and what values has reality as a whole? The principal of harmonious individuality may be the highest criterion of value. It may be the case that the most comprehensive and stable organization of content is exemplified in mind and specifically in socialized mind or personality. It may be that social individuality or personality is the ultimate criterion, source and sustainer of the intrinsic values of existence. Indeed, I hold that this is so; but it seems to me to be introducing confusion of thought at the beginning of metaphysical inquiry, and in fact to be a begging of the question, to assume that the final criterion of value is the only criterion of reality. We may have the right to believe that only harmoniously organized individuality rich in content is enduringly real. The most valuable realities may be the most permanent, but I do not think we have the right to assume that the discordant or impermanent or changing are unreal. Everything is real in so far as it is taken for what it is. The whole of reality now is no more real than any one of its parts, for every part is just as necessary to the whole as the whole is to it. If any part, however insignificant, and ephemeral, become nonexistent the character of the whole is thereby altered. What right have we then to say that the whole is eternally the same although its parts are transitory appearances? Before we can apply our criterion of value to the nature of reality as a whole we must by logical analysis determine the general structure of empirical reality.

That reality must honor or sustain the fundamental meanings and values that are discovered, wrought out and interwoven in the texture of human experience is the basic postulate of knowledge and intelligent action. Reality must be shot through with and controlled by the values, theoretical, ethical, affectional, and æsthetic, which man progressively discovers and realizes, in his manifold relations in the world totality; in which he is an interpreting, organizing, and, in some small measure at least, a creative factor. The fundamental forms of human self-activity, of which thought,

action and feeling are distinguishable but not separable aspects, are phases of the self-fulfillment of conscious life through the growth in selves of reflective intercourse with the world which may be called, indifferently, *dynamic thinking or intelligent action.* Knowledge is, though not in any narrowly utilitarian sense, a scheme or plan of action, by which selves can come into richer, more harmonious and durable relations with the whole of reality in which they are consciously dynamic elements; and, through so coming, can enrich, harmonize and conserve the life of conscious individuality.

Royce argued that ideas are always plans of action, that every idea demands its own fulfillment; and Dewey has insisted that thought's function is to serve as an instrument of better adjustment to the environment and of satisfaction of the self's interests. If the latter term be taken in a sufficiently broad and inclusive sense we can accept it. The function of thought, the function of even the most abstract universals, such as mathematical concepts and philosophical categories, as well as of the most elemental meanings of experienced objects, such as food and warmth, is to enable the self to enrich, harmonize and preserve its own being, to enlarge, deepen and perpetuate the values of experience by finding and living in the right relations to its physical and social environment. Only I would insist that an essential part of the higher life of selfhood consists in those experiences which we call æsthetic enjoyment, philosophical speculation and contemplation, and religious devotion, as well as in communion with one's fellows in friendship and love. For, as we shall see more fully, in later chapters, the self lives most deeply, not in narrowly practical activities but in these experiences which bring it into union with other selves and with the universe.

Thus *knowledge* or *truth is dynamic.* All meanings, universals, wrought out in the process of thinking, are plans of conduct in the broad sense. Their function is to guide and lead the self, which has fashioned them to this end, into deeper, richer and more enduring experiential relations with the rest of reality. The self which seeks realization is a conscious dynamic center in a dynamic universe. And, of course, as we shall see more fully in the sequel, the cognitive and rational self develops and lives in social relations. Knowledge is the product and the instrument of socialized selfhood or personality; through it personality enhances its own life in a

universe in which it is an immanent center, a partial creator and sustainer of experience. Through the maintenance, enrichment and harmonization of personality alone does the universe acquire meaning. In knowledge, thought and the self who thinks do not transcend themselves or remain shut up within their own skin; for the self who thinks is always a dynamic center in the world, a focus of cosmic forces; and knowledge is nothing else than the unique, because reflective, creative and universalizing, process or activity by which selves hold successful converse with the rest of reality.

CHAPTER VII

ERROR

In the present chapter I shall discuss the problem of error in its metaphysical bearings.

The psychology of error is a very important subject, but to deal with it in detail would take considerable space and might divert us from our main purpose.

The self lives in and through opposition, or what the Hegelian would call "negativity." The oppositions of life are contra-positives, or counter affirmations, not bare negations of affirmative positions. In the moral life the bad is not the mere absence of the good. There could be no moral life without the conflict of positive opposites. The good is often the enemy of the best. In æsthetic experience beauty lives by contrast with ugliness; and ugliness is not the mere absence of beauty, as common speech shows in its distinctions between beauty, plainness and ugliness. In the affectional life "sorrow's crown of sorrows is remembering happier things"; and happiness's crown of happiness includes the memory of old unhappy far-off things. Similarly it is in the intellectual life. Truth is attained in conflict with error, and not merely by overcoming ignorance. It is often said that error is truth in the making. There is a soul of truth in propositions erroneous, and a soul of error in propositions true. But we must distinguish between mere ignorance and positive error, else we shall make shipwreck on the paradox, which Plato brings out in the Theætetus and elsewhere—how can one think that which is not? If I am ignorant and am conscious that I am ignorant I commit no error. I err only when I believe and affirm a proposition in the absence of adequate empirical and rational grounds. Judgment involves belief and belief is the voluntary affirmation of a proposition, or of a complex of propositions. What one affirms to be true involves at least the volitional act of acknowledgment or acquiescence. It frequently involves the more active attitude of asserting or proponing judgments. Thus one cannot

be said to know or to claim truth who has not at least rethought and relived judgments into his own mental texture. Plato's distinction between having truth and possessing it is relevant here. Truth is appropriated, no less than found, through personal activity. Knowing is, in logical terms, the judgmental activity by which a thinker affirms that a specific apprehended content of meaning holds good of reality. A belief is a judgment, that is, a proposition made or accepted by the will as intellectual act.

The acquisition of truth through the activity of the self, and the intellectual development of the self through the acquisition of truth involve error; since it is only by overcoming error that one achieves truth. We cannot understand what a finite knower would be like without the possibility of error, any more than we can understand what a finite moral agent would be like without the possibility of sin.

Ignorance, I have said, is not in itself error, but one may err through ignorance; in other words, if one is ignorant of, or ignores, his own ignorance, and makes an affirmation he errs. One may err through failure to define clearly and distinctly what it is that one seeks to know. For example, I may err in a scientific investigation because I am ignorant of my ignorance of the presence of certain disturbing causes. I may err because I am ignorant of certain defects in my sense organs or in my logical processes of analysis and inference. In practical affairs one may err through ignorance of one's own powers, deficiencies or motives, or through ignorance of other men in the same respects. One may err through prejudices, inherited from tradition or acquired through social suggestion, or through one's own predilections. One may err through impatience and haste, due to desire, hope, fear or dogmatic self-assertiveness. If the mind received knowledge by passively reflecting the actual world, if truth were a mirrorlike reproduction or copying of reality, as representationism assumes, the possibility and fact of error would be unaccountable. On the copy theory of truth error would be meaningless. The mind would keep step with the world and there would be no contrast possible between truth and error. Thus the fact of error refutes pure empiricism or sensationalism. It is because the self develops its mental life in dynamic intercourse with the world that error is possible. Judging is reflective willing, or the activity of the individual intellect.

Error, in distinction from the mere absence of knowledge, is due either to emotional perturbations of the intellect or to the influence of unthinking habits of acquiescence, the result of man's tendency to accept, through social suggestion, prevailing habits of belief. Descartes was right, in part, at least in attributing error to the influence of the will, in the sense of the emotional and impulsive tendency in man to over-hasty judgment and absence of critical discrimination. As Hume wisely said, belief is more properly the offspring of the sensitive than of the intellectual part of our nature. Of course one may err from involuntary ignorance. There is doubtless such a thing as invincible ignorance of one's own ignorance. There is, however, also voluntary ignorance; ignorance due to the unwillingness of the individual to repress the emotional solicitations to belief or to resist the pressure of social suggestion.

Thus error, in the full sense, is a denial of the will to know, a refusal to will the whole truth. Obedience to the will to know carries with it the duty to doubt, to suspend judgment and repress the impulse to believe and assert. In the ethics of thought it is a paramount obligation to cultivate the consciousness of ignorance, to be skeptical and critical of particular propositions that clamor for belief. One has heard much of the will to believe. For a rational being the will to disbelieve, the duty to doubt, constitutes a greater obligation than the will to believe. In so far as one is conscious of one's ignorance and fallibility the sting of ignorance is drawn; the mind is transmuting ignorance into knowledge in the very process of doubting its own prejudices and prepossessions; for the greatest obstacle to the growth and spread of truth probably does not lie in unavoidable ignorance nor in mental impotence. It lies chiefly, rather, in mental inertia, in unwillingness to bear the pangs of doubt, and to undergo the labor of that critical and skeptical quest without which truth is not gained or possessed. Man will not will the whole truth because he is emotionally incited to accept specific propositions at their face value. To save himself the labor of rigorous analysis and the pain of resisting his appetites and desires, his hopes and fears, to gain time and energy for the satisfaction of desires other than that of clear and coherent thinking, man refuses to continue the enterprise of thinking; that is, of suspense of belief, rigorous analysis and the weighing of alternative possibilities.

Thus the assertion that one has the whole truth is the denial of the coherence of truth and experience. This denial has often brought direful consequences. For example, when the Inquisition persecuted Galileo in order to maintain what proved to be an erroneous cosmology, when Calvin caused Servetus to be burned, and in countless similar instances, the errors committed consisted in the affirmation of misinterpreted systems containing partial truths as the whole truth. The willful assertion of a partial truth as a whole truth or of a belief as final, in the face of its incompatibility with observed facts and logical deductions therefrom, constitutes radical error—the sin against the spirit of truth. In the face of man's intellectual history it cannot be denied that there is a voluntary error which arises from the violation of that ethical obligation to will the whole truth, of which the duty to doubt specific propositions is the converse. The intrinsic value of truth is a form of the intrinsic ethical value of rational selfhood. The true is by no means always the most obvious or pleasantest or most profitable in speedy returns. The search for truth demands self-discipline and self-abnegation, qualities rarer in institutions and parties than even in individuals. Here as elsewhere, in the spiritual life, he that seeketh his life shall lose it, and he that loseth his life shall find it. The recognition of the intrinsic worth of truth as a living system, into which the individual must penetrate by personal activity, and to which he owes absolute allegiance at the cost of abandoning his most cherished prejudices and passions, is the intuition of a universal spiritual quality in the self. The recognition of the impersonal and absolute value of truth impels the self to seek actively the maximal comprehensiveness and harmony or coherence in experience and in its reflective interpretation. Coherence in our beliefs is not subservient to any ulterior end. Reflective thinking presupposes the coherent meaningfulness of reality; in knowing, the self seeks to make reality its conscious possession, or *vice versa,* to remake itself into a center of significant awareness of reality. Truth means the reflective organization of experience, under the guidance of the ideal of a harmonious intuition or coherent system of meanings, which is the apprehension of reality as an intelligible whole or cosmos. The particular facts in nature, history, the social order, or the individual life, get their meanings through their universalizing connections in the organic totality of experience. Thus no isolated datum is

true. There are no absolutely atomic facts. In this sense there are degrees of truth—degrees of approximation to the ideal of a completely articulated system of meanings in which the individual thinker transcends his private and particular existence and holds converse with the nature of the world. That the real universe is, at least *in posse,* a coherent or intelligible whole is the fundamental postulate of thought. Thus knowledge moves on from stage to stage in the unity of reflective life, in so far as it contributes to the enrichment of the intuition of reality as a harmonious whole of individual elements.

Emerging first in the urgent pressure of vital needs and appetites, the life of reflective thinking acquires, in the course of social evolution and individual development, an intrinsic value in proportion as selves take on a more reflective and rational character. Reflective thinking remains always a function of personal life. Truth enriches and harmonizes personality. But, in the growth of reflection, thought ceases to be merely an instrument for reaching extrinsic ends. Thought becomes an integral function of the self, enriching the contents and transforming the quality of life itself. No longer merely a means to ulterior ends, reflective thinking becomes a part of the supreme end—the fulfillment of personality.

The study of early mythologies and cosmogonies indicates that disinterested curiosity and delight in the free play of productive imagination and reasoning must have appeared quite early in the history of the race. But the successful development of free mental activity was not possible without a considerable degree of practical control over nature. Man must first be liberated from the urgent pressure of hunger, physical discomfort and sex appetite and from debasing fears before he can do much disinterested thinking. It is the employment of knowledge as an instrument of practical utility which removes the hindrances in the way of the free and disinterested activity of thought. In this respect the development of knowledge is analogous to the development of art, which has likewise passed from being a tribal utility to being an intrinsic form of personal value.

I have said that all activity of thought, over and above that which is impelled by the pressure of practical needs, arises from a sense of the intrinsic value of truth for the development of personality by intellectual union with the universe of reality. Thus

truth, as a form of intrinsic value, means the realization of spiritual personality through contemplation of the universe—the intellectual love of God. He in whom the desire for this contemplative union with the nature of things has not been awakened is not yet a full personality. In the urge to know the truth for its own sake man stands in the presence of an ultimate spiritual quality. On the other hand, truth does not exist for him who feels no obligation to seek it for its own sake; just as the good or the beautiful do not exist for those who feel no desire to seek them for their own sakes. Truth, goodness and beauty are their own excuses for being.

CHAPTER VIII

THE FINAL GROUND OF KNOWLEDGE[1]

It may be well to summarize our main conclusions thus far. Thinking is not a mirror which passively reflects a world outside; valid thoughts are not copies of things. Thought is active in knowing, no less than in willing. It is obviously the case that the individual mind in knowing does not create the materials of knowledge, not even of its own self-knowledge. There are always determinate data for thought given through immediate experience. On the other hand, it is a fruitless endeavor to attempt to define the original data of experience in terms of a so-called pure experience or an absolute sensible minimum of experience. Sense data or *sensa,* as Mr. S. Alexander calls them, are thought data; for perception is implicit or incipient judgment. We can draw no line, on one side of which are the sensa and on the other side are judgments. Pure sensations are artificial products of analysis. There is no such thing as "pure" experience. It is an abstraction. Actual experience, in its crudest terms, is the reaction of mind to stimuli, but the most immediate datum is the experience as received and categorized by mind. The stimulus is an inferential or logical construct. Even electrons or ether have meaning only as organically related to minds perceiving movements, stresses and strains, attractions and repulsions, colors, etc.

The cognitive value of the entire realm of the unconscious or not-self depends on the readiness with which the most immediate experiences, as meeting points of self and not-self, lend themselves to interpretation and reconstruction in terms of the self's controlling interests and categories. (I have said "unconscious or not-self" because, in so far as a self may know itself, what it knows is not itself as knowing. I leave in abeyance for the present the question whether, and how, a self may know itself.) While the

[1] This chapter is the revision of an article under the same title which appeared in *The Philosophical Review,* Vol. xvii., No. 4, July, 1908, pp. 383–399.

external world has a determinate and independent order, this order is found not to exclude the interpretative influence of thought and the directive influence of purpose. The self is able to know to some extent the order of nature and to adjust its own activities thereto. *The most obvious test of knowledge is that,* taken by and large, *it works.* Moreover, the external world does not dictate unconditionally to the mind the direction which its thoughts and purposes shall take. Nor does it determine the rate at which knowledge shall grow. Human thinking in its theoretical and practical procedure is self-determining, in the sense that it selects the data which it shall reconstruct in accordance with its own aims. The history of science, with its varied rates of procedure in different fields and in different epochs of culture, bears out this truth. The individuality of every investigator enters into his choice and manner of work but, still more, every age has its intellectual fashions and fads.

The responsiveness of the external world to the permanent categories and changing aims of human thought implies a dynamic correspondence, an organic interrelationship between mind and world. Either the development of knowledge is the coming to awareness in minds, and the expression in mind-made symbols, of this dynamic community; and, hence, the world of reality is in some large sense a rational or intelligible system akin in structure, though on a much vaster scale, to mind; or else knowledge hangs in the air, its validity is a mere human prejudice and hence even the partial successes of knowledge give us no authentic tidings of the nature of reality.

It is quite the fashion to argue that the standard mind or social mind is the final test of truth. By this is meant the agreement of different minds under the same conditions. If we cannot apply the test of universal consent, *quod semper, quod ubique et ab omnibus,* we may rely on the experts, and experts are socially recognized authorities. The truth of a proposition, then, becomes a question of its social standing; and, on the other hand, since men's minds notoriously differ, we must presuppose, when we apply the test, that we are making reference to the real masters. I do not question the practical value of this test. The authority of experts may be the final court of appeal for the laymen. But this test, after all, has only approximate value. Nobody knows who the real masters are but the masters themselves and they by no

means always agree. Moreover, the social test rests on a suppressed premise. It presupposes a common rational structure in all minds and the possibility of a common relation of all minds to reality. The standard mind or social mind is an abstraction. Thinking goes on, and truth is known, only in individual minds. Thus the very recognition of other minds and of an external world common to minds implies that the individual mind is, potentially at least, a microcosmic center of valid intercourse with reality. The self, the other self and their world, must all be elements in a systematic and intelligible whole. The validity of truth cannot depend finally upon the coöperative thinking of human society, since in the latter knowledge is always imperfect and growing whereas truth, by its very nature, means a reality not created by the historical and psychological accidents of discovery. The development of society, through the growth of knowledge, presupposes the same intelligible and systematic order of reality which the cognitive success of the individual mind presupposes. If the conditions of the validity of knowledge are not directly implicated in the movement of the individual's thinking those conditions cannot be established by averaging individual minds into a standard social mind.

Doubtless, knowledge of one's neighbors is, at all stages of human development, of greater practical and emotional interest than knowledge of nature. But this does not place the former on a generically different plane from the latter, nor give it a validity of a higher order. Both kinds of knowledge begin in immediate experience—perceptions of contact, form, color, movement, etc., in the one case; and the feeling of another life and consciousness in the other case.[2] How much in the dark we often are as to our fellows' motives and ideas, not to mention those of the animals!

In both cases our knowledge requires to be corrected and enlarged by the same mental processes. Both forms of immediate experience must be mediated, in order to yield surer practical guidance and a fuller insight.

When we employ the various logical methods of investigating and testing the results of thinking, we are not comparing the latter with something wholly alien to itself. We are testing the adequacy of our symbols and formulae with reference to the ideal of a self-

[2] Lipps neatly distinguishes the immediate experience of external objects and of other selves as *Empfindung* and *Einfühlung* respectively.

coherent or wholly systematized experience. Knowledge is intra-experiential, in the sense that the materials and points of departure for cognitive thinking are found in immediate experience; and, again, knowledge involves all along the line a reference to experience, in the sense that its goal is a complete or perfected experience, in which every datum is become an element in a harmonious system. On the other hand, in relation to any actual experience, cognitive thinking has always a transcendent reference, since this complete or perfect experience is for us in part only "ideal" or "possible." We can conceive reality as a systematic and self-consistent whole only in terms of the structure and functions of a "possible" perfect experience or *transcendental mind;* a mind that transcends in its complete coherence the mind of every finite self and in which all the data of knowledge are present in their organic unity. Valid knowledge is the symbol of, and the actual reference of the individual's thought to a reality, which, whatever the qualitative variety and quantitative multiplicity of its elements, must have those coherences or relationships that are commonly called "rational."

While truth has for me its point of departure in my experience, and implies other selves, its ultimate reference must transcend the experience of any finite self. And knowledge is always the reflective consciousness of some relation or group of relations between a thinking mind and the systematic whole of a self-coherent reality in which the mind so thinking is an element. Reality may have many series of increasingly inclusive systematic unities, from that of unconscious physical centers of relationship up to that of an absolute self-luminous unity of "ideal" experience. If reality in all its forms were not always intelligible, at least in promise and potency, knowledge could have no absolute validity. Truth for man is an individual achievement and possession here and now in a particular mind, and yet it must possess universality of reference, that is, be timelessly valid for all. How can we reconcile these attributes of truth? Kant and his immediate followers based the objectivity of truth on the existence of a consciousness or mind common to all individuals, but, in itself, over-individual and absolutely distinct from the empirical ego. But they failed to make clear the relation of this universal consciousness (*Bewusstsein überhaupt*) or "transcendental ego" to the individualized human consciousness. In Kant's theoretical philosophy

the former seems to be a merely formal unity. And, from one point of view, the metaphysics of Fichte and Hegel were attempts simply to bring this notion of a universal mind into more definite relation with that of the individual mind. We must now consider this problem.

I have already maintained that thinking selves develop knowledge or attain truth only in community with other members of a relational system, and that the success of the individual mind in reaching truth indicates that the world of reality need contain nothing absolutely impenetrable by mind. Individual minds have knowledge only as members of an intelligible system of things. Community of experience and universality, as attributes of truth, involve a fundamental identity of function, and hence of nature, in the elements of reality. Hence reality, in its systematic totality of meaning, must be a rational unity. The total real must have that intelligible character which is demanded by the place that human cognitive activity occupies therein. If any knowledge be valid, then the real universe is an intelligible and systematic whole, that is, a rational organization. If there be any truth, and if the real world be a unity, this truth is valid only as an element in a systematic whole of meaning. This systematic whole must signify, or define, in terms of meaning and value, that aspect of reality which exists as the totality of objects of truth.

Truth, we say, is universal and necessary. By these attributes we obviously mean that any normal mind, placed in the same conditions and having had the same training and antecedent experience, must recognize the truth, or significant reference to existence, of the judgment which we have made or accepted. But to appeal to a normal mind as the standard of recognition for truth is to assume a common and universal structure and functioning in individual minds. This common rational structure is the universal mind or thinker, the ground of the relational or rational system which is the ideal of knowledge.

The ultimate subject of reference in valid knowledge, then, is a systematic cosmic mind. Just in so far as the world is a universe it must be embodied mind. The reality of this mind is presupposed whenever we test our judgments and theories by reference, either to the general conditions of valid thinking, or to the special conditions of actual existence. The test of self-consistency, that is, of noncontradiction in a system, implies the ultimate

reality of the rational coherent structure which functions in individual minds. The test of empirical reference to perception, in scientific induction, presupposes the coherence of the physical world-order with the structure and aims of mind in us. If there be any truth, the existing objects to which truth makes valid and significant reference must possess the specific character which makes truth valid and significant. If truth be valid, the elements of reality which are not in themselves consciously significant ideas, or valid meanings, must conform to valid meanings, that is, to cognitive acts of reference. In short, ultimate reality is twofold in nature. It includes, in organic interrelationship, the valid reality of truth, or of the system of cognitive meanings, and the existential reality of thought's objects of reference. And the valid reality of truth as a systematic whole presupposes that all existent objects, whether physical or psychical, are possible subjects of cognitive meanings. Ultimate reality, then, must be a duality-in-unity—cosmic thought whose object is the cosmos.

Indeed, mind or spirit is essentially a self-realizing process which knows, feels, and acts through "differences," and which fulfills itself in overcoming differences. In winning truth, mind affirms its oneness with the "other" or "object" to which truth refers, as, in winning the good, mind affirms the oneness of its impulses and character with an ideal end, or as, in experiencing the beautiful, mind feels its harmony with the object. The unceasing movement of mind towards conscious self-possession and self-determination, through that which is other than itself, is the primal condition of its conscious meaningful life. Did this movement cease, mind must relapse into the unconsciousness of a dead thing.

Truth, in the specific sense, is always the significant symbol of relationships of things which belong to some kind of system. Even the truths of mathematics are but highly generalized signs of relationship among real things. Now, relationships that could not be cognized or felt by some mind would be unmeaning. One who asserts the existence of relationships inaccessible to any thinking center is able to do so only because, in thinking this supposed independence, he presupposes implicitly some sort of world mind or objective rational structure. Relationships signify intelligible connections, and the reality of the latter presupposes a constitutive or sustaining act of intelligence.

There can, then, be no truth or knowledge which does not obtain in and for some mind. And, if there can be no world of existents unqualified by truth or meaning, there can be no world of existents without a world mind. One might, of course, arbitrarily assume a reality utterly independent of all mind; but a reality of this sort would be forever beyond the pale of discussion and utterly meaningless, since without positive reference to our experience. Hence, the whole system of psychical and other finite existences, with whose interactions and interpassions the individual knower's experience is inextricably bound up, and on which in specific cases knowledge seems to depend for the validity of its meanings, must in turn depend upon a more intimate systematic unity. The system of individual experiences must have a real basis for the unity that it depends upon at every moment in its life and for its continuity from moment to moment in the world's history. The common basis for thought and knowledge must transcend alike the individual consciousness and the so-called "social consciousness," which latter is real only as a set or attitude of the individual mind. It follows from the principle that nothing can at once exist and have meaning which does not exist for a mind, that the single ground of the social system of individual meanings must be for some mind or center of experience. In a final analysis the objectivity of truth, the valid reference of knowledge to reality, depends on the reality of a single, systematic intelligence, which must have a determinate character, since it is the ground of a determinate system of cognitions.

But, now, the question confronts us: Why need there be any absolute truth at all? What right has one to assume that any knowledge has final validity, that any system of cognitive meanings is honored by the universe, that things have any ultimate significance whatsoever? These queries might be answered by pointing to the splendid practical successes of science in giving man control over the physical world. But this would be only a makeshift answer. For, again, the objection might be urged that our knowledge is, after all, as yet very limited, is constantly changing, and the years of human science are infinitesimally few in comparison with the ageless duration of the universe. Therefore, it is possible that our fragmentary science, with its ideal of systematic completeness forever unrealized, is but a happy hit which more or less successfully fits into the present phase of an ageless, ever changing

chaos. The vaunted fitness of science to the world may be but a chance coincidence amidst a chaos of innumerable possibilites. On the ground of a utilitarian success alone, we are not entitled to assume any final validity in knowledge nor any absolute truth.

It is true, nevertheless, that the skeptic is himself unable to refrain from assertion or judgment of some sort. In his deepest doubt there lurks the assumption of a possible knowable truth. Even when he suspends judgment and refrains from any assertion, he assumes that he knows enough about the nature of things to make every more specific assertion futile. In short, to seek truth is a fundamental impulse of rational human nature, an impulse from which the most radical skeptic cannot free himself. To become reflectively aware of any experience is to make judgments, and to make a judgment is to assume that some reality is intelligible, that some truth is valid. Even the skeptic cannot free himself from the rule of the instinct to know. His most radical questionings presuppose the possibility of an answer. His most consistent attempts to suspend all judgment imply at the least this judgment about reality, viz., that it is so constituted that no human judgment can be valid for it, or that there is no means of determining whether any specific judgment is valid.

In short, to think at all, even in terms of the most radical skepticism, is to assume the validity of truth. We must seek truth and promote its recognition, because it is a mode or function of the common spiritual nature in men. Truth is an end in itself, since it is an integral pulsation of universal reason in the spirit of man. In attaining truth the individual thinker is entering into the universal heritage of mind.

Serious objection may be made to the doctrine that the supreme cosmic or systematic intelligence, on which truth is made to rest, has self-consciousness. It may be urged that, however completely I may organize my experience into knowledge, still my experience and thought, as finite, are dependent on a "not-self" or "other." Knowledge seems always to involve both a resemblance or community of nature between the knowing self and the not-self or "other," and a duality of being. So far as our insight goes, it seems, then, that the very condition of a conscious selfhood and, therefore, of experience and knowledge in general, is the existence of an element that cannot be comprehended in or absorbed into the self's thinking. Therefore, it may be said, as soon as one conceives

knowledge to be absolute, one thinks the self as absolutely coincident with the data of experience. Knowing "self" and known "object" collapse or coalesce into a higher unity.[3] The objective reference or validity of knowledge in relation to the materials of experience ceases, since there is no longer any existentially outer object or "other" to which thought can be referred by the self. Knowledge, when it becomes absolute, fuses wholly with its object and self-consciousness ceases, or is transmuted into something else—into some higher, and, by us, inconceivable kind of experience. It would follow that in this higher state of insight or experience there can be no longer any cognitive consciousness, as we human beings understand consciousness, nor any truth as we conceive truth. The complete union of self and not-self results in something which may be more than a conscious self, but which certainly cannot be a self in the sense in which we know the self reflectively. Hence, the systematic intelligence on which the whole of knowledge depends cannot be self-conscious and nothing can be true for it. It may be a perfectly harmonious immediate experience *à la* Mr. Bradley, but it cannot be a self.

Now, it must be admitted that, if a self-coherent totality of truth be real in and for a consciousness, the relation of such a consciousness to some of its objects (that is, to those objects of its knowledge that are not its own internal and immediate states of feeling) must differ decidedly from the relation of any human consciousness to its corresponding objects. For us objects always remain partially opaque. Truth cannot be a perfect organism, unless it mean the thorough comprehension by the knower of the determinate world of objects. A universal knower must, then, as conscious knower, have a world of "objects" and, as perfect knower, must wholly penetrate, with an intuitive insight, this world. Such a knower must be in some sense the ground of his own experience.

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[3] Those who emphasize the "immediate" character of "absolute" insight, as a state in which the distinction of knowing subject and object of thought is "abolished," "overcome," or "transcended," are fond of citing emotion and, especially, personal love, as illustrations of what sort this higher state may be. But the illustrations are hardly satisfactory from their standpoint. In personal love the distinction between lover and beloved is not abolished or overcome. Requited love is surely a case of unity-in-duality. The two persons are, indeed, one, but thereby their distinctive personalities are enhanced and enriched to one another, not transmuted into a higher impersonal unity. Love is, indeed, a good illustration of what knowledge strives to become without ceasing to be knowledge.

So far as his experience depends on the activities and experiences of other beings, their experiences must, in turn, somehow depend on his activity. A world which is the "other" of his thought cannot have self-existence external to his will. Hence, such a knower must sustain the world of objects which he knows. The "opposition" between his thought and its objects, for example, the movements of a material system or the activities of living and conscious beings, must originate in his own activity. His life can be "limited" or "determined," only in the sense that he is conscious as originating an "opposition" through and in which he finds consciousness; in other words, he is conscious as self-determining activity that constitutes the "other" for his own conscious experience.

This is a difficult notion that probably no amount of reflection will make plain to our finite and growing minds. But sun-clear lucidity is not to be expected in such matters. Moreover, there is that in the nature of human consciousness which gives us some inkling of the possible nature of a "higher" consciousness. For it is not true that knowledge, in all its phases, depends on the opposition of a wholly external "other." The impulse to know is by no means always a compulsion from without, and in self-knowledge the object is within the knower's thought. The higher phases of knowledge involve the self-initiative of the knower who in knowing enlarges his being.

In order to satisfy its demands for reflective insight into the nature of things, the finite self must seemingly go outside its present selfhood. But, indeed, the truer view is that in knowledge, as in any kind of genuine self-activity, growth in depth, extent, and organization involves a constant dialectic movement between the two poles of internally initiated interests and activity and externally given materials and obstacles. And the goal of this movement is twofold—the internal appropriation or interpretation of the not-self, and the expansion and enrichment of the self. In this dialectic process of development through "opposition," the mind assimilates a seemingly foreign world more and more completely to itself and enlarges its own being thereby. In knowledge, which is a special case of this general movement, the "other," which first appears as a negation of the knowing mind, is progressively overcome and unified with the mind.

The process of knowledge, and, indeed, of experience as a

whole, is a progressive overcoming of the fundamental antithesis between self and not-self, which is the nerve of all intellectual activity, of moral endeavor, æsthetic vision, and religious aspiration. The meaning of the antithesis is that it is there to be overcome; and the self is potentially infinite, since it can overcome unceasingly the opposition in question. It does overcome this opposition, and make it tributory to its own self-fulfillment, in finding the true, as in willing the good and enjoying the beautiful.

This process of self-realization is illustrated in the social world, where selves coöperate to win truth and goodness and to embody the vision of beauty. The farther the social relationships of selves develop, in the direction of mutual understanding and inclusive sympathy, the more completely does the single self learn to find itself in and through other selves. It dies to its narrow selfhood to live in a larger experience. The primitive savage is so ignorant and fearful that to him every stranger is an enemy, a point of absolute "opposition." The cultivated man of the twentieth century can appreciate the meaning of a world-literature and cherish the thought of a universal peace and of a humane social ethics. He lives through and with others in a vastly wider, richer, and more harmonious experience than that of the savage. The deeper and more harmonious a self's experiences become, the more rationally communicable and sharable do they grow. Progress in rational self-consciousness is at once a growth in internal self-enlightenment and in communal experience. A living world of socially related individual centers tends toward fuller unity-in-variety. And the "otherness" of its world of things and selves is a prime condition of the human self's growth in knowledge, as in goodness and in all the forms of harmonious experience. Without "opposition," "contrast" or "negativity" to be lived through, there is no reflective insight and no ethical volition. Now, the growth in knowledge is simply the explication and the revelation of that community between the self and its world (of things and selves) which is implicit from the very outset of mental life.

Object and subject of knowledge, then, are strictly co-relative. The imperfection and indirection of our human knowledge result from the finite and growing character of the individual members of the world system, both as knowers and as known. On the other hand, if there be a systematic, self-consistent whole of truth, the mind for which this truth is true must have an insight that wholly

penetrates, while yet it consciously lives in, the contrast of subject-knower and object-known. Its knowledge, it would seem, can neither be impelled nor limited by anything that remains stubbornly outside the reach of its experience and immediate insight.

A supreme mind, of course, could not be a knower without an object of knowledge. But, on the other hand, if such a mind be the ground of truth in its self-consistent totality, that is, if it be the source and basis of the unity and continuity of cognition in finite centers of being, then the "objects" of its knowledge cannot constitute external and stubbornly opaque limits to its world insight. Every object, for a supreme self, must depend on the consent of his will or somehow have its basis of existence in his being. The finite self may possess its own unique experience and be the proximate initiating center of its own deeds, but its being and action must be impossible out of relation to the supreme mind who sustains its life and experience as an element in the whole system of reality. One could not conceive a supreme mind without finite centers of experience. Their lives and activities must enter, as elements, into the unity of its insight. Just as a finite self may be said to have his experiences sympathetically reproduced by other finite selves, so by analogy a supreme mind may be said to apprehend intuitively and in perfect degree the mind of a finite self without abolishing the latter's unique experience and life. Mind can give to mind without losing, and take without robbing. Truth may be shared in common by a multitude of minds and yet refer to one indivisible object. So a finite self, here and now, will have this bit of experience or this particular propositional truth as a unique element in his mental history, but the final validity and significance of this local and limited experience will depend upon its relations in and to the whole of the absolute or "ideal" experience of the supreme mind. The latter may know our experiences as elements in the systematic meaning of the universe, while our experiences remain uniquely valid for us.

Of course, it is possible to assert that knowledge is but a transient episode in an unconscious universe. But, if so, and if the universe have any coherence, then no knowledge is true, since there is no absolute whole of truth. If there be no organism of truth, then the statement that knowledge is an episode in an unconscious universe is untrue, and there is no universe except for one who is willing to make unmeaning assertions.

The "experience" or knowledge possessed by the universal mind or spirit must, as we have seen, be direct and intuitive, in contrast with the hindered and piecemeal character of most of our human knowledge. The Universal Mind must apprehend truth in its systematic totality, and the absolute truth must be the whole system of relations and terms which is intuitively perceived or grasped in a single and continuous act by such a mind.

It would seem to follow that neither the truths of mathematics nor of perception (the two poles of human knowledge) need exist for such a mind precisely as they exist for our minds. Obviously perceptive intelligence in such a mind must grasp every item of perception in all its relations, and this our minds never do. The universal mind must be an intuitive intelligence; our minds are largely discursive in their operations. For example, the proposition that $2 + 2 = 4$, or that the three interior angles of a triangle are together equal to two right angles, need not represent acts of thought for a perfect intuitive intelligence. Grasping space in its final truth, in the totality of the real, such a mind does not need to geometrize. I venture to suggest that the intuitive processes of the highest genius in science, poetry, art, processes which transcend discursive thinking, give us the best hints of the nature of a supreme intuitive intelligence at once universal and individual.

While the universal mind is the necessary implicate of the system of finite existences, sentient and insentient, and cannot be thought out of relation to these, it cannot be an existent in the same sense in which finite things exist. Its being must at once transcend every form of existence and sustain the system of the finite in its organized totality of meanings or of truth. The ultimate presupposition of truth's reality or validity is a transcendent mind or "ideal" experience, whose being is the pure actuality of intuitive thinking or active reason, and whose expression is twofold—the validity of knowledge and the system of finite existents concerning which knowledge is valid.

It is not difficult to see that truths of logical and mathematical relationships may constitute one unchangeable system of truths, the object of an absolute thinker's reason. But the case is very different with the concrete and particular truths of fact in a developing or evolving world. If the world be really in evolution the succession of facts and deeds in the world process cannot be, as such, one eternal and unchangeable system for any thinker. The

knowledge of events and deeds in the world's history must involve a time sequence. The time process must be real. There may be at any instant a single, continuous and comprehensive whole of intuitive insight into the events and relations of the evolving world. But such a knowledge cannot be eternally unchangeable. The histories of selves and their world must make a difference in the supreme intuitive experience. The so-called timeless or eternal truths of logic and mathematics can represent only the structural skeleton of the world order. On the other hand, if truth implies a thinker or knower then the truths of fact and deed in the evolving history of the world must, if the universe be a coherent and intelligible universe, constitute elements in the universal knower's experience. The latter must be a unitary intuition or systematic whole of meaning. The world process, inclusive of the histories of finite selves, must enter into this one concrete living and dynamic intuition. The world experiencer must manifest his being and know himself in the total process of temporal reality. All truth won and error perpetrated by finite selves must be contributory to his total insight. The world experient must be more than consciousness and more than thought. It must be the self-active whole of meaning or will-reason which lives and energizes through the lives of developing selves in an evolving world. Its intuition of its world of things and selves must depend upon its own originating and sustaining activity manifested in the world.

BOOK II

THE GENERAL STRUCTURE OF REALITY— THE CATEGORIES

CHAPTER IX

WHAT ARE CATEGORIES?

Category means a fundamental form of predication or assertion. Every science and every principal form of man's reflective activity has its guiding categories. For example, we speak of the categories of physics, of biology, and of natural science in general; of the categories of historical or social thought; of the categories of literary and artistic interpretation; of the categories of moral, social and religious thought and practice. Philosophy, regarded as a criticism of the categories, is the enterprise of determining what are the fundamental categories for the interpretation of experience, and of organizing these fundamental categories into a coherent system. Philosophy inquires whether there are certain universals, or ultimate forms of predication, which apply to all types of existence; how these ultimate forms are related and what positions and validity the special categories have in the whole system of the categorial interpretation of experience. For example, the categories of identity and diversity, quality and quantity, particularity, individuality and universality, substantiality, causality and community or reciprocity, are applicable to all sorts of empirical things; we can apply them all to rocks, plants, animals, minds or planets. On the other hand the categories of end and value are not obviously applicable to the interpretation of physical things; the applicability of the latter categories seems to imply the presence of minds or at least of organisms. We shall now consider the fundamental categories or primary universals.

The primary categories are nonempirical conditions of empirical reality; nonempirical, not in the sense that they are not found in experience, but in the sense that their meanings and applications do not depend upon any specific set of empirical qualities, since they are applicable to every sort of empirical subject matter. (This, I take it, is what Kant meant when he said the categories were transcendental conditions of experience. They

transcend any experience, since they are presupposed in thinking all experience.)

The categories are forms both of thought and of things. The mind is awakened to the use of them by the impact of experience. They are implicitly present in experience from its very beginning. Through the reflective organization of experience, the mind finds the categories in its world as the texture of relations which makes an ordered or significant experience. Thus, the mind neither invents the categories in a vacuum nor are they pitchforked into the mind by the senses. The ordering of experience is one aspect of a single process, of which the reflective organization of mind is the other aspect. If there were not a dynamic correspondence, a constant active intercourse of thought with the rest of reality, the categories would be *a priori* cobwebs, fictions spun by the mind out of its own inwards; and the world experienced would not be a world but a chaos. In discussing the categories I shall therefore proceed upon the assumption of an active and successful correspondence of thought and reality. In other words my working hypothesis is that the more experience is categorized, the fuller the revelation of the nature of reality and of the correspondent nature of mind. This hypothesis, of course, implies that universals are just as real as particulars, since categories are primary universals. Indeed it implies that reality is a universe or cosmos, an organic or systematic whole of particulars in relation.[1]

The most important systematic treatments of the categories in modern thought are probably still those of Kant and Hegel. The most thorough and instructive discussion of them in contemporary literature is, so far as I know, that of Mr. S. Alexander in *Space, Time and Deity*. For lack of space and time I shall make but scant reference to Mr. Alexander's fine work. My own standpoint is quite different from his, but I wish to say that no one can afford to consider seriously this subject, which is the very heart of metaphysics, without weighing carefully Mr. Alexander's treatment of the categories.

Can we find a clew to the complete ordering of the categories? Kant was misguided when he found the clew in the table of the

[1] This means, of course, a rejection of the Kantian doctrine of a noumenal reality distinct from the realm of phenomenal existence and to which the categories do not apply. In fact Kant failed to keep consistently to this distinction.

judgment forms of formal logic. His table of the categories is both redundant and incomplete. For example, categories of quality are repeated in the categories of modality. Identity and diversity, universality and particularity, receive no adequate treatment. Moreover Kant's categories remain functionless and inert in a high *a priori* vacuum until they are put to work in the schematism of the imagination. Hegel tried to derive all the categories by the immanent movement of the dialectic process, which process is for him the moving spirit of mind and of reality, since reality, as a whole, is the absolute, all-inclusive mind or individual. The moving principle is negation or contradiction; thus non-being is the negation, the complete opposite or contradictory, of being; therefore empty being is the same as non-being. Being, the thesis, and non-being, its antithesis, are synthesized in becoming. What Hegel really meant was that all real being is determinate being. Non-being is the bare negation of existence. To say that non-being is the same as being in general is a perverse way of saying that there is no being which is not some determinate kind of being. Hegel confuses contrary opposites with counterparts or differents. Identity and diversity, for instance, or wholeness and partness, or particularity and universality, are not contradictories but counterparts. What Hegel's logic proves up to the hilt is, not that negativity or contradiction is the moving spring or reality and thought, but that every determinate being or existent implies an other. As Plato puts it, being partakes of the "same" and the "other." These communicate with one another. For example, yellow is neither spherical nor juicy, but in an orange each of these qualities, which is an other of the others, communicates with one another. An orange is not an orange tree; the tree is an other of the other, that is, the orange, but the tree and the orange are interdependent existents. Hegel has sufficiently demonstrated that reality must be a systematic totality of related elements, and not a chaos or mere aggregate. If the principle of negativity only means that the nature of any finite existent, when thought out to the end, implies that any existent exists only in relation to all other existents, and that the whole of existence is a system of related beings or elements, we may accept it. But negativity, in this sense, is not contradiction, and we cannot by its aid derive all categories from mere being. I shall attempt to show that the primary categories are interrelated, or communicate with one

another. I shall also try to show that, if we start with the simplest category, that of quality, there is a development of categories in pairs which are united in higher categories until we come to the all-inclusive category, which for me is Order. We are to proceed from the simplest and poorest, in the sense of the least meaningful category to the most comprehensive category.

It has become fashionable to say that, whereas particulars *exist,* universals *subsist.* If this distinction means that universals have a pervasive and permanent sort of being in contrast with the local and temporary being of the particulars which they relate, it is useful. If it means that subsistence is some ghostly sort of being apart from the concrete reality of experience, I can find neither sense nor use in the distinction. The subsistence of universals means to me their substantial existence—that they are the all pervading and ever permanent warp of reality to which empirical particulars are the woof.

I shall consider, in the following eight chapters, the meanings of the principal categories of philosophical thinking in their applications and their mutual relationships. I shall begin with the simplest categories—those of quality.

CHAPTER X

LIKENESS AND UNLIKENESS, IDENTITY AND DIVERSITY

The qualities of experience, which are the raw material of our knowledge of reality, the immediate stuff of reality, are given through the senses. Colors, shapes, massiveness, temperatures, tastes, smells, kinæsthetic qualities, pleasantness and unpleasantness—all these and other qualities are irreducible *sensa data* or *sense of reality*. Other beings with sensory equipments other than ours would have different data of reality. For example, a dog's world is doubtless largely made up of smells.

For human beings, then, the immediate stuff of reality consists only of the qualities sensed and felt. We cannot explain why we have just these and no more sense qualities; but the mind no sooner begins to take note of them than it notes that there are *degrees* and *kinds* of *likeness* and *unlikeness*. The various colors, for example, are alike in that they are colors. So color is a kind. Colors and sounds are so unlike that they are different kinds, although the fact of colored audition, if it be a fact, suggests that possibly they are not absolutely different kinds. However, for the normal mind the various types of sensation do appear to be different kinds. Color does not become sound or taste nor *vice versa*. On the other hand, a light differs from another light, a sound from another sound, an acrid taste from another acrid taste, in degree or intensity; thus unlikeness of degree differs from unlikeness of kind. For the comparison of sense qualities with respect to degrees and kinds of likeness and unlikeness arise the categories of *identity* and *diversity*, both qualitative and quantitative. From these arise, in turn, the categories of unity and plurality, wholeness and partness, continuity and discreteness, substance and individuality.

Likeness is partial identity of quality; that is, *generic* identity. A kind or class means more than one instance of a type of existent which constitutes a kind, by virtue of either a single qualitative similarity or a complex of similar qualities. Red or green are

instances of simple kinds, dog or man of complex kinds. In brief a simple likeness, such as a color, spatial form, odor or taste, is the basis of a simple kind; a complex likeness is made up of a combination of simple likenesses, as for example—orange, apple or dog. The ultimately simple kinds are based on the not-further analyzable differences of quality. It is difficult to say what are simple qualities; for example, is red really a simple kind or are all shades of red different simple kinds? When we say that a thing is in a class by itself we mean that there is only one instance of the kind, and strictly speaking we are dealing not with an instance of a kind but with a unique individual.[1]

The distinction of degrees within the same qualitative or generic likeness is the work of the category of *intensive magnitude.* It has been denied by some that intensive magnitudes, such as lights, sounds, or pleasures and pains, are commensurable. But surely we can note and compare differences of intensity! If one light is brighter than another and the latter than a third, if one pleasure is keener than another and the latter than a third, surely we are measuring lights and pleasures in terms of a qualitatively identical scale. And that is what we do when we measure lengths and weights. It is assumed tacitly by those who admit commensurability in the latter cases, and deny it in the former, that in the latter cases alone we have absolute fixity of scale; but in neither case do we have absolute fixity. Measures of length and mass vary too; only they vary less than measures of light or pleasure-pain, since the data of sight and touch are relatively more constant than the data of light and affection.

The categories of *number* and of *spatial relationships* are based on the recognition of existential identity and diversity. Because there are empirically different qualities and complexes of qualities which occupy distinct positions in space and time (distinct point-instants) we count, and because distinct particulars or positions persist or endure together we relate them in space and we enumerate them. Because qualitatively distinct positions succeed one another in time we order them; through superposition we measure spatial magnitudes; through direction or "sense," in its mathematical meaning, the recognition of which involves time, we

[1] Ultimately, only the whole system of the universe can be a wholly unique individual. Such is the absolute in the philosophy of Messrs. Bradley and Bosanquet.

recognize spatial relations. A numerical series is a temporal order of direction regarded as enduring in space. All our most complex and abstruse theorems in regard to number, magnitude and quantity have their roots in the empirical facts of the occupation of space in successive moments of time by particular qualities and complexes of qualities. I have neither the time nor the capacity to show in detail how this is so, but I may sum up the foregoing matter as follows. Simple or complex likenesses of qualitative particulars occupying distinct positions in space and time are the basis of all generic relations or class universals. The empirical differences of particulars are the basis of number and quantity. The empirical relations of simultaneous and successive existents are the basis of all relating through unity, plurality and totality.

The category of *whole* and *part* deserves some mention. The empirical basis of wholeness is the continuity of our spatial positions in time; in other words, the original of wholeness is a spatial *order* that endures unchanged in a succession of temporal moments. We derive *partness* from the fact that we recognize distinct qualities and groups of qualities as permanently occupying distinctive positions in succeeding moments of time. Of course we distinguish between the wholeness of a spatial continuum and the wholeness of an organism or mind, since the parts of the organism and still more of the mind more intimately pervade the whole than the point-instants of space and time pervade the whole of space and time. Thus the problem arises as to whether an organism, a person or a society of persons, are adequately conceived in terms of whole and part. I do not think they are, but this is a matter for discussion later. I am concerned now only to insist that the original of the category of whole and part is to be found in the experience of space-time as a continuum which includes sensory or qualitative distinctions and relations.[2]

The category of *identity* and its correlative *diversity* are used in equivocal and misleading senses. We must distinguish between *generic* and *existential* identity. If two particulars were abso-

[2] My colleague, Dr. A. R. Chandler, comments as follows: "Taken introspectively, music furnishes simultaneous wholes without spatiality; it furnishes 'sense' as one tone above another in pitch, without temporal succession or space arrangement. The spatiality comes in through the empathetic kinæsthetic sensations and images aroused." I am unable to separate, in my own introspection, the kinæsthetic factors from the pure music; but then I am a "duffer" in regard to music and he may very well be right. If so, there is an empirical instance of whole-part relation without space or time elements.

lutely identical in quality and duration they would not be two, as Leibniz pointed out in his principle of the identity of indiscernibles. Existential identity means the same as numerical identity, and the minimum meaning of numerical identity is existence in at least one moment of time at some point in space. Thus, as Mr. Alexander argues so effectively, reality in its poorest terms consists at least of point instants or event particles; that is, of events that occupy positions in space. Moreover, in order that an existent may be identified it must exist for at least two moments of time at a point in space, or in two moments of time occupy two related points in space. Every position in space occupies time and every instant of time is located in space. Time and space, as we shall see later on, are interdependent totalities. They are not class-universals, in the generally accepted sense of the term, but *wholes.* An existent is identical with itself only in so far as it is different from other existents, and *vice versa.* As Plato put it, the same and the other are in *communication;* or, as Hegel argued *ad nauseam,* the same is the other of the other. In short, all existents are elements in the systematic totality of being. Reality is a whole made up of parts in relation; the parts are the particular existents; the relations are the universals by which the particulars have membership in the whole. Thus the consideration of identity and diversity leads us into the consideration of particular, universal and individual, unity and plurality, continuity and discreteness, substance, causality and reciprocity, and finally into that of the structure or order of the universe. Before we take up these concepts it is desirable to clear up a confusion in regard to identity and diversity which is found in the literature of so-called absolute idealism.

In the writings of Messrs. Bradley, and other idealists I find a subtle fallacy, which consists in arguing from the interrelatedness of all existents to their existential identity. All existents are determinate and all determination involves relation, but it does not follow that the relatedness of all existents makes them parts of one being that is both numerically and qualitatively self-identical. Suppose we assume that there are an indefinite number of empirically distinct point-instants, that all these are empirically distinct centers of quality; suppose we assume further that some of these centers have the qualities of vitality and sentience. Let us grant further that all our assumed centers are in interaction and inter-

passion; in other words that they are interdependent parts of one whole—the universe. Let us assume further that the highest conception we can frame of a whole is that of a mind or experience, does it follow that the universe must be one mind or experience? Is it not illegitimate to argue from the systematic character of reality as a whole to the conclusion that reality as a whole is both generically and numerically one self-identical individual? I shall argue later on for the doctrine that the various orders in reality constitute a hierarchy which probably has its ground in a supreme principle of order. This position does not imply that all existence is both qualitatively and numerically one.

The problem of identity and diversity has thus carried us into the very heart of metaphysics, which is the question of the right relation of the one and the many—of the universe and its members. In recent philosophy this question has taken the form—are relations and relata independent of one another? Before I discuss this question, it is desirable to consider the relations of quantity and quality.

CHAPTER XI

QUANTITY AND QUALITY

Since our purpose here is to consider the metaphysical relations of quantity and quality, it is not necessary to enter, at any length, into the problems of logistic or mathematical philosophy.[1]

Number and spatial magnitude are the two fundamental forms of quantity. They originated in man's practical desire to count his possessions, to measure land, and to weigh things. Number and magnitude seem, at first blush, to be as different as time and space. Indeed, the very notion of number involves the recognition of a temporal series; counting is stringing together, in the consciousness of an orderly series, discrete moments. The notion of magnitude involves the simultaneous existence and persistence of extended parts; a bulk or mass consists of co-existing positions which resist occupation by anything else. But, we shall see later, space and time are interdependent aspects of the perceptual world. The measurement of magnitude involves number, and the enumeration of things involves spatial reference. Indeed, while arithmetic and geometry at first may have developed more or less apart from one another, the progress of higher mathematics has been in the arithmetizing of geometry. Pythagoras appears to have begun this work, and, in the course of it, to have discovered the incommensurability, in terms of natural numbers, of the side and the diagonal of a square. This difficulty led to the invention of irrational numbers. Coördinate geometry and the calculus were two great steps in the arithmetizing of spatial magnitude and motion —that is, in the expression of continuous wholes in terms of discrete magnitudes.

Kant said that number arose from the consciousness of the

[1] On the latter subject, see: B. Russell, *Introduction to Mathematical Philosophy;* A. N. Whitehead, *Introduction to Mathematics;* Whitehead and Russell, *Principles of Mathematics;* L. Couturat, *The Algebra of Logic;* P. Natorp, *Die Logischen Grundlagen der Exakten Wissenschaften;* H. Poincaré, *Science et Méthode.*

repetition of acts of attention; in other words from counting things. This idea has been criticized, on the ground that it is circular, and that number can be considered apart from the act of enumeration.[2] Number is defined by Russell, following Frege, as follows: "A number is anything which is the number of some class"; and, "The number of a class is the class of all classes which are similar to it"; "similarity consists of one-one correspondence between the classes"; thus all couples, trios, etc., are in one-one relation. Number thus is defined in terms of classes and one-one correspondence. I do not question the value of this definition, but it presupposes number and implies enumeration and is circular. For "class" implies individual members or particulars which have the similarity of being grouped together as sharing in a common relation. Every definition of number is circular, and we really define it by pointing to it.

Number is essentially, in origin, a discrete order, or one-in-many. It involves the consciousness of a succession of acts of attention. Unity is an abstraction from the recognition of identity in things and in the self for which things are identical; plurality or manyness is an abstraction from the consciousness of a community of relation among distinct identities, by virtue of which they can be grouped together into classes. At first one thing was something which responded in some fashion to a single interest; things which responded to several interests were several; several things which responded to a common interest were one-in-many, were, in short, a number-group. Thus the notion of number arose from the recognition of identity and community or class-relation. A group is an assemblage of objects bound together by a common interest for the grouper; whether it be a group of rational, irrational or transfinite numbers, or a group of dogs or sheep, or a group of things whose only common feature is that they are owned by the grouper. Thus cardinal number is derived from ordinal number, and the latter is the abstract or symbolical expression of the consciousness of the orderly series of thought in repeating and summating units or identical entities. Enumeration is the conscious synthesis of the series of acts involved in adding and subtracting units. All operations with numbers imply

[2] See, B. Russell, *Our Knowledge of the External World*, pp. 187–189; and *Introduction to Mathematical Philosophy*, chap. 2; J. W. Young, *Fundamental Concepts of Algebra and Geometry*, p. 64 ff.

the judgments: there are particulars or units and there are identical relations between these. In dealing with pure number and quantity we abstract almost entirely from the qualitative heterogeneities of the objects of thought; I say "almost entirely," since there would be no meaning in enumeration, or any other operation with number, if we did not recognize the distinctness or particularity of each symbol and its corresponding act of attention. Just as in determining how many sheep one owns one can ignore their respective sizes, colors and sexes, whereas for purposes of breeding or marketing one cannot ignore those differences, so in purely arithmetical and algebraic operations, one considers each symbol only as the sign of an act of thought. What cannot be ignored, if number and numerical operations are to mean anything definite, is that a number is a discrete moment in an order series. Thus a number series is the most abstract symbolical expression of a temporal order, just as measurements of spatial magnitude are the most abstract expressions of spatial order. Of course the symbols which represent the number series can be seen or thought as existing simultaneously or in space. Whether we can count without imagining movement in space (M. Bergson says that we cannot, and Mr. Russell that we can), at any rate we can apply number to space, and we do measure in time.

The invention of symbols for whole numbers, fractions, negative, irrational and complex numbers, has made possible notable advances in number theory, and in the applications of mathematics to practical problems. Number is objective as an expression of the objective constitution of thought. The most complex number series, assemblages and groups, the whole development of modern number theory, is a beautiful example of the fact that thought has a determinate constitution. Starting out from specific definitions and assumptions it finds definite logical consequences to follow from its starting points. Thus pure mathematics becomes identical with symbolical or purely formal logic. Its entire superstructure is built on the consequences that follow from the nature of its symbols and assumptions. The universal nature of thought, to which we must conform if we wish to think logically, is revealed in pure mathematics which is the play of pure thought conducted according to the rules of the game.[3]

[3] But when we are told that there are transfinite numbers, or infinite number in which a part is *equal* to the whole, or in which the addition or

A number series that was an absolute continuum would be as senseless as a sand-rope series; for the essence of every number series is that it is a discrete series. In this, the simplest and most fundamental form of human thinking, is expressed the basic problem that lies at the heart of all human thinking and intelligent action—the problem of the relation between the discrete or particular and the continuous or total. If we ask what is the relation between identity and diversity, the many and the one, the particular and the universal, the individual and the social order, personality and the universe, the changing and the permanent; we are posing special aspects and phases of the one fundamental question—*how to reconcile discreteness and continuity, individuality and order,* in theory, practice, or contemplative vision. Pythagoras was not so far astray when he said that numbers are the essences of things. The final question of all philosophical theory is the meaning of *order;* the bottom problem of the practical life of the human person is the true nature of *social order;*

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subtraction of a number makes no difference to the size of the number, that is to the number of units contained in it we are asked to abandon the notion of number in its usual meaning. If mathematics be not the science of number and quantity, then it is high time that some other name were found for the latter science. Inasmuch as, historically and by general social usage, mathematics is the science of number and quantity, it seems to me that it would be much less confusing and misleading to call the new science logistic or symbolic logic. I am unable to understand a number that is a part of another number and yet is equal in number to that number of which it is a part.

With all due admiration for the profoundity and ingenuity of Messrs. Cantor, Dedekind, Russell, et al., it seems to me that their transfinites, infinites contained within infinites without number, but in which the containers and contained are equal because they are in one-one correspondence, their continuities which are not continuous since number is essentially discrete, have contributed to obfuscation of thought concerning mathematics and number and quantity. Numbers have functioned in the history of culture as, discrete symbolic expressions for discrete series of acts of thought, by which things of all sorts can be enumerated or added and substracted, by which men can carry on barter and can better operate on the physical conditions of life; and which, beyond these practical uses, afford the human mind opportunity for the development of precise and rigorous habits of thinking. The confusion between the older science of number and quantity and the new theories of the infinite and of a mathematics which dispenses with enumeration and quantity, and thus becomes a purely abstract and formal logic of terms, propositions and relations, lends color to Mr. Russell's definition—"Mathematics is the science in which we never know what we are talking about, nor whether what we say is true" (*Mysticism and Logic,* p. 75). Mr. Russell identifies mathematics with formal logic. It deals entirely with hypothetical propositions and sheds no light on the nature of the actual world. "Geometry throws no light on the nature of space," and, I am tempted to add, the new infinite throws no light on the nature of number. (See Appendix to Chap. 35, "On the Infinite.")

in both fields the concept of order is the solution of the question as to the right relation between the discrete and the continuous, the individual and the universe; the practical question is insoluble, if the philosophical foundations be ignored. (The chief trouble with civilization to-day is that neither those who are trying to alter it radically, nor those who wish to return to a "state of normalcy," have any thought-out philosophy. Until rulers become philosophers, righteousness will not prevail.)

Quantity is a relation. It depends upon quality, which is the stuff of reality. Number implies that there are particular identities, self-identical things, so that each is a unit or contains the unit. Any number is defined by its place in a number system. Thus numbers are symbols of sets of logical relations. Spatial magnitude is the relation of a given spatial configuration or bit of space to conventionally established units of length, area, volume. The same holds true of weight and mass. In every case a quantity is the relation of given simple qualities such as extensity, movement and mass, in a conventionalized system of relations. Every actual quantity is relative to a system and every system is a convention. All quantitative relations are based on comparisons of quality; for example, the measurement of lengths and areas presupposes sameness of extensive quality; and empirical extensity is a simple quality, like color or sound. More and less, in degrees of intensive magnitude, are simple cases of comparison of differences in the same quality. Thus two extensive magnitudes are greater and less, respectively, because they are differences in the same quality; extensities differ in intensive magnitude, and vice versa. Spread a color or a sound over a larger area and it becomes thinner or weaker in intensity; condense it and it becomes more intense. Extensity and intensity, the spatial and temporal factors of experience, are inseparable. But quantity is a relation of quality. Therefore, only in so far as there is homogeneity of quality between them can things be measured in the strict sense. Colors cannot be measured in terms of sound, nor pleasures in terms of spatial extensity. We may say, figuratively, that one pleasure is more voluminous than another, but we cannot compare them in terms of cubic centimeters. Intelligences can be measured in terms of other intelligences, but not in terms of physical extent or weight. In so far as spatial extensity is homogeneous we can compare and measure its parts, by putting one alongside,

upon, or inside another. This can be done because extensity is persistent. But we cannot, in the same manner, measure qualities which are essentially temporal; such as pleasures or psychical values. In so far as experiential or lived time is heterogeneous we cannot compare exactly its successive moments. We measure lived time only by distorting it into rhythmical space-movements; thus reducing the heterogeneity of experienced change to the homogeneity of repeated identical movements in space. Measurement of the living succession of experiences assumes that all change or duration is a succession of generically identical moments, which is not true. If the successive moments of experienced duration or change were really identical in character, there would be no recognition of change. To M. Bergson belongs the merit of having brought this truth out clearly, in the first two chapters of *Time and Free Will,* although it has been known since Leibniz.

All precise measurement presupposes that the parts of space measured differ only in relative positions and extents; and ignores the question whether differences of position and extent can coexist without further qualitative differences. Empirically there are no pure positions, areas, lengths and volumes. From the point of view of concrete experience all measurements must be regarded as useful fictions; the fundamental positions and volumes are qualitatively diverse and ever changing. Reality consists of groupings of unique qualitative positions or event-particles, and quantitative comparisons are skeletal schemes of their relations. I do not mean that the relations are unreal, but that the empirical complexes of qualities are substantive whereas the relations are transitive. I employ the word "transitive" here in the sense in which James uses it; namely, the *substantive* elements in experience consist of the resting places of thought, the *relata* or *transitive* elements, consist of the transitions. In the terminology of the newer logic only those relations are transitive by which one can pass from one term to another through the mediation of a third; for example, if A implies B and B implies C in the same system of relations then the relation is transitive since A implies C. There is danger of confusion in the use of the phrase "transitive relation." James uses it as a term of psychological description for the passage of the mind; the new logic uses it as the basis of true inference in place of the *Dictum de omni*

et nullo. Obviously the latter usage involves the problem of the metaphysical status of relations, which I consider in Chapters XII and XIV.

While the extensity-factor of experiences is the only one that can be *directly* measured, since only extensity can be accurately matched with extensity, the other qualities of experience can be measured indirectly, by comparison. Even pleasures and pains and other emotional processes can be compared with respect to their intensities and durations. Thus, while the intensity of psychical processes are not measurable in terms of spatial units, and while as numerical units no two of them need be exactly alike and therefore they furnish no units of measurement within their own kind, they are comparable and, thus far, measurable. There are changes in the qualitative characters of psychical processes which are in one-one correspondence with quantitative changes in the stimuli; colors and sounds change in quality with changes in the rate and amplitude of the motion of their physical occasions; so do tastes and smells; pleasures and pains vary with the intensity factors of the stimuli. The Weber-Fechner law of the relation between intensity of stimulation and of sense-experience is an attempt to generalize these facts. Its interpretation is disputed and we need not discuss the point here, beyond saying that its meaning is probably chiefly physiological, although attention lowers the threshold of consciousness for sensations. Our very feeling of personal identity, our central mass of systemic feeling or coenæsthesis, is changed by the alteration of the fundamental rhythms of our bodily life, such as the rate of the heartbeat, breathing, etc. Since the empirical qualities of both our perceptual world and our felt selfhood change with changes in the velocities of physical stimuli, why not go farther, as a materialistic metaphysic does, and say that all the qualitative diversities of the empirical world are nothing but differences in the spatial configurations and velocities of the motions of mass particles? To do this is to reduce the empirical world to variations in the spatial relations of elements possessing no other qualitative distinctions than, let us say, differences in electric sign and mass. This is the ideal of quantitative science, expressed in Lord Kelvin's saying: "What we can measure, we can know." On which I would comment that, from the point of view of totality, measurement gives only the bare bones of reality. The most significant

and worthful qualities of experience we cannot measure directly, but we do know them. All differences of quality are not reducible to differences of extensive and vector quantity. The world of living experience has many unique and absolute differences of quality and hence of value—of pleasure, pain, happiness, sorrow, beauty, grandeur, terror, love, joy.

Experience is the primary reality, and in it we cannot pass from one order of quality to another without taking account both of the qualitative complexity of the experient, which is for us an ultimate or primary fact, as well as of qualitative differences in the stimuli. Nature apart from the percipient is not of one quality, or even a few. The percipient is a specific and complex reactor. Even in the same order, for example, in colors, sounds or tastes, each discriminable experience is qualitatively unique. We cannot always say how much of this uniqueness is to be attributed to the percipient and how much to differences in the stimulating media. And, certainly, in the inner or feeling life of the percipient each experience is unique; here, as everywhere, only differents are comparable. Similarities, comparisons in degree and kind, are relative and vary, according to the standpoint and purpose of the comparer.

To reduce all differences of quality to differences of quantity would be to eliminate all substantive elements from experience, and, with them, the experient himself. But the human self, the living experient, is a creative organism, which educes from the microscopic mechanisms of the physical world, as conceived by the scientist, all the rich and multiform and tingling variety—shapes, colors, sounds, tastes, odors, beauties, grandeurs, friendlinesses and terrors—which it perceives in nature. Walter Pater says, "Color is a spirit upon things by which they become expressive to the spirit."[4] Every quality that man perceives in nature is a spirit upon things by which they become expressive to his spirit. And a nature that is thus expressive to the spirit, and which we may well believe has many more capacities of expression to the spirit attuned thereto (as, indeed, we know, in the case of poet, artist and nature-lover) is not a skeleton or framework of quantitative relations which the spirit of man drapes

[4] "Essays on the Renaissance," p. 63, quoted by Mr. Bosanquet, *Principle of Individuality and Value*, p. 63.

with hallucinatory garments and endows with an illusory life. The wealth of empirical qualities which the spirit of man educes from a nature responsive to his nature must be expressive of a qualitative wealth and variety of activity and life in a universe that is richer, not poorer, than nature as man perceives and images it. Quantity is relation—a relation of order and magnitude among realities that are revealed as energy and life in the substantive qualities of experience.

CHAPTER XII

RELATIONS

The problem of relations has been a storm center in recent philosophy. The problem is this: What is the most intelligible or consistent *conception* of the *relations between* things or individua? In the language of James, relations are commonly regarded as the *transitive* parts of experience and things or existents as the *substantive* parts of experience. This is because the recognition of a relation involves a mental transition from one thing to another. In this mental transition we may misconceive the real relations between things; but, inasmuch as every judgment involves a twofold relation, namely, the relation of things judged to be in relation to one another and the relation of the judging mind to the whole matter of the judgment, there can be truth only in so far as the second relation is the apprehension of the first relation. It follows that relations must be just as real as the things which they relate. Indeed, when we consider relations in themselves or *in abstracto,* as universals, they seem much more permanent than things. Things may come and things may go but relations go on forever. Aboveness, belowness, greaterness, equality, beforeness, afterness, causality, wholeness, partness, paternity, ownership, lovingness, etc.—such universals are relations which appear to have an eternally subsistent being apart from the muddy and transitory stuff of empirical existents between which they hold. In view of the difficulties involved in forming an intelligible conception of the world as a system or totality of existents in relation, the easiest solution might appear to be the doctrine that things or existents and relations are wholly *external* to one another—that relations "subsist" eternally, like the Platonic Ideas in the common version, and that particular existents come and go, enter into and pass out of relations, without their natures being changed. Such is the doctrine of logical pluralism or logical atomism.

I shall maintain the doctrine that relations have only a mental existence apart from things, and that in reality things exist only in relation and relations are real only between things. In other words, reality is a systematic whole of existents in multitudinous relations. A thing is neither the mere sum of its relations nor something indifferent to its relations. There are relations which are irrelevant, or extrinsic, as Mr. S. Alexander puts it, to the nature of the existents, *so far as we can see.* For example, it is irrelevant to my nature, so far as I know, just how many particles of dust there are in the atmosphere of Sirius, if Sirius have an atmosphere. On the other hand, my family, community, cultural, and professional relations are very relevant to my nature. In other such relations, I would be other than I am, and if I were other than I am, I would be in other such relations. No existent could exist out of the relations in which it exists and continue to be itself. All things are related in some way, but not everything equally to everything else. Some relations between existents are negligible, when we are considering the natures of the existents, and there are many degrees of relevancy in relations. It is not very relevant to the nature of my pipe whether it is now on my desk or in my pocket, but it is relevant to its nature whether it is often alight and filled with tobacco and in my mouth. The world contains an indefinite plurality of existents in an indefinite multitude of relations of varying degrees of intimacy. There are static relations in space, dynamic relations in space and time, relations of value between sentient beings and their physical and social environments, affectional and moral relations between selves in society, etc. All relevant relations are dynamic, that is, they involve transactions between the things related. All things have at least spatial and temporal relations. Such relations may or may not be relevant to the nature of the things—for instance I do not know whether the fact that the flavor of champagne and the square root of minus one are both constituents of this spatial and temporal world means that they have any relevant relationship, but I do know that there is a relevant relationship between the eighteenth amendment to the Constitution of the United States and the flavor of champagne—to wit, the flavor of champagne is vanishing with the champagne.

There are two alternatives to the doctrine that the real world consists of dynamic things in dynamic relations. These are: **(1)**

the singularistic or monistic doctrine that all relations are more or less illusory appearances and that reality consists of one super-relational being, the absolute; and (2) the pluralistic doctrine that reality is not a system or cosmos at all, but that it consists of a collection of various things and various relations that have being independent of one another; in short, is a multitude of Leibnizian monads without the preëstablished harmony.

Thus, the problem of relations brings to a head the fundamental issue that lives at the roots of all metaphysical questions, that is basic to the problem of the place of personality in the world order—in what sense is the world of reality one or a universe? Is our so-called universe merely an aggregate or collection of various entities, as the extreme pluralist holds? Is it ultimately one being inclusive of everything real, as the extreme singularist holds? Or is it a system or order of elements in relation; and, if so, in what sort or sorts of ultimate relation? Using the term "entity" for whatsoever may be a constituent of reality, and the term "relation" for all sorts of connections between entities, I shall now discuss this problem.

Modern metaphysical idealism or spiritualism, since Fichte and Hegel, has for the most part been singularistic or numerically monistic. Indeed singularistic or monistic idealism goes back to Spinoza, the first great singularist of modern philosophy. Singularistic idealism or spiritualism argues that, since everything finite is, both with respect to its being known and its existence, related to, and therefore dependent upon, an other-than-itself; therefore all finite entities can exist only as members of a single all-including whole—the many can exist as many only in the one, the differents or others can be a system only if they are constituents of the unity. Therefore the only alternative to chaos, the only way in which we can get a cosmos, is to suppose that the whole system of real entities is, ultimately regarded, one perfect all-inclusive being. And the only adequate sample or type of such being is to be found in a mind, self or personality; or, at least (as Bradley puts it) a perfect experience. Singularistic idealists are not agreed as to whether the absolute one can be considered a self-conscious self or personality. They are agreed that it is of the nature of mind; since in Mind is to be found the only true type of unity-expressing-and-realizing-itself-in-a-system-of-differences, and maintaining its oneness in the whole related system of mutually

complementary and conditioning finite others.[1] I need not expound this argument further, since I shall recur to it later, in discussing the nature of consciousness.

The pluralist denies the validity of this argumentation. The neorealistic pluralist, in particular, calls in question the validity of the argument from the ubiquity of the knowledge relation (the egocentric predicament); namely, that, since everything known is in relation to a knower, therefore to say anything about anything or about everything we must admit that its being is dependent on a knower or mind. If this argument be invalid, then entities may be in all sorts of relation without their totalness being dependent on a mind. If knowing need make no difference to the existence of the entities known, then the latter may constitute some sort of universe or system without the system being mind-constituted or dependent. The relations between things are just as much natural facts as the empirical qualities of the things. No one type of relation can be regarded as ultimately constitutive of the character of the cosmos.

It follows that no one type of finite existence can be regarded as furnishing an adequate example for interpreting the nature of the cosmos. In fact, the cosmos cannot have a homogeneous nature; it must be a plurality of existents with a plurality of qualities; it cannot be either one self or experience, or a society of selves. The neo-realistic pluralist's contentions, if accepted, negative both singularistic or monistic and personalistic or pluralistic spiritualism.[2] The doctrines of Hegel, Leibniz and Berkeley are equally untenable. Reality must consist of many kinds of entity in many kinds of relationship.

The central and critical tenet of extreme pluralism is that entities and relations are independently real—have being external to one another. For, once we grant that entities can stand in no relations without thereby suffering modification, we have committed ourselves either to a chaotic doctrine of reality or to a line of reasoning that will land us in some form of singularistic idealism if we go through to the end. Neither materialism nor dualism

[1] Such is the general line of argumentation in Fichte, Hegel, Green, Bradley, E. Caird, Bosanquet and Royce. A neat condensation thereof will be found in M. W. Calkins, *The Persistent Problems of Philosophy*, 3d Edition, pp. 417–456, *cf.* also Taylor's *Elements of Metaphysics*, Chap. 2.

[2] For reasons which I will state presently, I regard singularistic or monistic personal idealism as a *contradictio in adjecto.*

can afford us a coherent conception of how the many can be many entities and yet be elements in one organic or hyperorganic system —materialism cannot, since it must oscillate between a chaotic atomism and a continuism in which all differences of quality and individuality are wiped out; dualism cannot, since, by its very terms, the universe is cut in two with a hatchet.

The pluralist contends that, fundamentally, there are two kinds of being, differing with respect to their logical and epistemological status—concrete entities or particulars, which exist; and universals or generals, which subsist or are valid. All relations, taken as such, are universals. Thus, for example, likeness, equality, greaterness, lessness, wholeness, partness, rightness, leftness, have subsistent being apart from the concrete existents that are like, equal, greater, less, whole, part, right, left, in relation to other entities. The concrete existents may, as known or experienced, enter into such relations as the above are examples of, and thus be qualified by the subsistent universals in question; and may in turn make their exit from the relations, without having their natures modified thereby. The existents retain, through all the changes and chances of their mortal lives as known, their *existent being,* and the universals retain their *subsistent being,* no matter what they qualify. They suffer no sea change "into something rich and strange," by becoming or ceasing to be objects of experience.[3] Since, then, experience or knowing makes no difference to the natures of many of its objects, the ground is cut from under all philosophies that would build up a theory of reality by an analysis and re-synthesis of the nature of experience, as belonging to an experient, at the very start. The objective idealist is knocked clean off his pins. He is left without even one leg to stand on. (Neorealistic pluralism harks back to Plato, for its august parentage. Whether its claim is legitimate I cannot here discuss.)

It is self-evident to me that relations or universals can have no subsistent (or any other sort of) being, in abstraction or separation from concrete reality, except as thoughts in some mind. Apart from concrete physical reality, on the one hand, and minds, on the other hand, they have not even ghostly subsistence; for there is nothing for them to subsist on or in. Universals exist *in reality*

[3] Professor Spaulding explains how this proposition or thesis is established by analysis *in situ.* I have neither the temerity nor the space to state his explanation. I refer the reader to his *The New Rationalism, passim.*

only as the texture of connections among concrete entities. They are simply the ways in which existents resemble and differ, qualitatively and quantitatively, act on and suffer from one another.

It is equally self-evident to me that no concrete existent can exist absolutely out of relation to, and independent of, all others; except the whole universe of reality which, by definition or conception being the totality of being, is the self-existent totality of existents-in-relation, to which all existents-in-relation, and, therefore, all entities and relations are internal.

But is it, therefore, necessary to conclude that there must be one ground or medium of all relations between finite entities? Is it not sufficient to suppose that the systematic, coherent or orderly character of the cosmos (in so far as there is a cosmos, since we do not know how much cosmos or order there may ultimately be) is due simply to the fact that the many existents which make up the universe are in all sorts of relations to one another? Do we need any more unity than that of changing, growing and, perhaps in spots, decaying, immediate rapports between elemental existents? Why hypostatize unity? There are all sorts and degrees of relationship discovered and discoverable in the factual world. Why not follow the law of parsimony and rest satisfied with these, thus admitting that our so-called universe is partially a multiverse, that it is a whole, not in itself, but only for a finite totalizing mind, a collection only for the collector and not in itself—one subject of discourse but not one-being-in-itself.

This much seems to me certain—the progress of the mind in successful knowing and practical activity refute the doctrine that things and relations are mutually external to, or independent of, one another. Cognition and action are transactions of the self, as a member of a system or cosmos, with other members of the system. So much stands fast, whatever be the most plausible interpretation of the nature and meaning of the whole system; whether it be life, mind or a system of mass-particles. Relations express and realize the natures of things, and the natures of things do not exist out of relations. There is a multiplicity of orders of relation between things, and there may be a plurality of qualitatively distinct types of existence, but no thing has any real existence apart from its relations, and no relations really exist otherwise than as transactions between things. The nature of a thing cannot be conceived apart from its position and connections in a group, a class, or a

series. The advocate of wholly external relations puts the problem wrongly when he assumes, if relations are relevant or intrinsic, that means that the relations somehow or other enter into and burglarize the things, wholly upsetting their internal economy; and pass out after another disturbance. But there are no locked and barred things—no windowless monads, to begin with. All existents are *individua,* unitary complexes of qualities which exist only in so far as they function in the totality of the real. The actual universe is a manifold of individua.

If one begin with the assumption that reality consists of entities or terms *and* qualities *and* relations, with no more connection than a verbal conjunction in the mind of the philosopher, it will, of course, require a *tour de force* to get these disconnected bits of a possible world into some sort of coherent universe. The only alternative conclusions from such a starting point are, either that the real world is but an aggregate or chaotic heap of disconnected entities (chaotic pluralism), or that relations are unreal and reality is super-relational (abstract monism). But the initial assumption begs the whole question as to the nature of reality. Reality does not consist of absolutely isolated fragments. Empirical reality is always some sort of a whole, consisting of specific qualities in determinate relations. Epistemologically, *things* are undoubtedly constructions out of the raw qualities of sense-experience; but the latter lends itself to this construction because, ontologically, it is a systematic complex of determinate qualities in specific relations. In empirical reality there is no sound or color in general, no redness or smoothness in general; only determinate colors, sounds, and tactile qualities. There is no equality or inequality, no greater or less; only specific sense-complexes that may be regarded as equal, unequal, greater and less. The relations which the mind finds between sense-data are indeed abstractions; but these abstractions would be meaningless, were not the actual world a complex of systematically connected sensory data.

While, *from our special and limited points of view,* there are relations which seem wholly external, in reality there can be no absolutely external relations between things. Our intellectual constructions approximate in varying degree to the systematic totality of the real. Our thinking does indeed falsify reality, by ignoring many of the relations of entities and by misconceiving others. But thinking would have no motive even for misconstruing rela-

tions, if the world were not a real complex of related things. It is because of the limitations of our ignorances or our special interests that many relations seem external. On the other hand, the supposition that ultimate reality is a super-relational absolute, and that all our relating activities falsify it, destroys the possibility of understanding or acting in a world. If there are no real relations in the ultimate universe it must be an utterly unintelligible and static one; incapable of analysis, and to the parts of which no predicates can be validly attributed.

If there be a universe, then all elements of it are in some relations to some other elements, but not necessarily all to all. The universe as a whole is in no relation, since, by hypothesis, it includes all relations; but this does not preclude a mind, as a conscious focus of relationships, from truly apprehending its own relations to other parts of the universe and the relations of other parts of the universe which it contemplates to one another. The Spencerian argument that, because thinking is relationing, we cannot partially know the absolute, is a fallacy. A more serious argument against the reality of relations is that of which Mr. Bradley's dialectic is the best known modern instance.

Mr. Bradley argues that we cannot consistently think things and their qualities—space, time, causality, activity, the self, etc., through to the end, because we always become lost in the indefinite regress of terms and relations. According to this type of argument my relation of paternity to my son is inconsistent appearance, because, in order to render it intelligible, we must find a relation which relates me to paternity and paternity to my son, other relations which relate these relations to me and him, and so on forever. Thus the more persistently I try to think out the relationship the farther my son and I drift apart. Mr. Bradley's argument is effective against any theory which would set up things, qualities, causality, space, time, etc., as entities existing by themselves. He demolishes the pluralistic world of tiny absolutes. But his conclusion that all determinate existents, including all specific truths and all qualities of finite beings, must be merged and transmuted in a super-relational absolute does not follow. There are mediating or intermediary relationships but, in the last analysis, *all mediating relationships are grounded on immediate relationships.* My relation to my son is a two term and asymmetrical immediate relationship. To say that A is the grandfather

of C is to state an intermediary relationship which is grounded on the immediate relations, A is the father of B and B is the father of C. But there can be no immediate relations unless the terms related are *distinct* existents. It is true that we can never complete the apprehension of the relations in which a finite existent exists. There are two reasons for our inability—first, the enormous complexity and extent of relations; second, since relations are transactions and all existents are elements in a dynamic universe, relations change and existents change with them. It does not follow that our partial knowledge of relations is false because it is partial, because we do not know all the relationships of the relata that we do know in the whole system of reality; for example, the proposition "my writing paper is now on this desk" is now absolutely true to me; and for even a cosmic knower it must be true that this proposition is true for me; otherwise, he is thus far a poorer knower than I am. My true apprehension of the relations of entities are valid for me and as far as they go, because my position in the whole scheme of things is what it is. The relativity of my knowing, as compared with cosmic knowledge, does not invalidate mine since the latter is the apprehension, by a finite member, and in part, of his own place and relations in the whole.

It remains to add that what we regard as relevant relations, relations that are significant for the natures and destinies of the things related, depend on our individual interests, purposes and situations. Relations that are significant for one individual or purpose may be insignificant for another. The world is wide and rich in the natures and relations and points of view of its elements. But in the long run every apprehended relation that is true and that works must be grounded in the objective texture of reality. We search for relations pragmatically and we work them pragmatically, subject to the structural or textural order of reality.

We may sum up the foregoing as follows: (1) If entities are in any relation the natures of the entities and the relations cannot be entirely external to, or independent of, one another. (2) There are many sorts of relations and degrees of closeness, intimacy, or relevancy in the relations of entities. Each distinguishable type of relationship is best called an *order,* or *system.* (3) Reality as a whole may be a universe or total system. Therefore, there may be an order of orders, a cosmic system which is fundamental to all the special types of order in the universe. (4) The probable char-

acter of this supreme order canot be determined by epistemological or dialectical considerations alone. It can be determined only by a synthesis of the chief aspects of reality, after these aspects have been determined by a comprehensive analysis of human experiences and attitudes in their total characters. Specifically, we must consider both the real logic of sense-experience, the real logic of values, and the ultimate problem of the relation between the order of sense-experience and the order of values.

1. The first proposition does not now require extended defense, since it underlies the entire discussion of knowledge and reality. To say that any two or more entities are so related that their natures would be precisely the same as they are in this relation if they never had been, nor could be, in this relation; or that if the relation should absolutely cease the entities would not thereby be affected in any degree or kind of quality—is to talk nonsense. The assertion that things can be absolutely the same in and out of relations seems to be simply an appeal to the thoughtlessness of the naïve. The more we learn to understand and control things, just by so much do we find that they live only in relations. The plausibility of the assertion that relations need make no difference whatsoever to the terms related by them is due to the fact that many relations are, for many purposes, negligible or practically irrelevant; or, at least, in our ignorance, we are prone to think so. For most people's purposes it makes no difference who Ikanaton was; but to the Egyptologist it makes a lot of difference, and, if I knew enough, I might see that it made a great difference to western civilization. I cannot see that the solution of certain problems in higher mathematics makes any serious difference to practical life now, but it may make a great difference to the future of both engineering and logic. The world is rich and wide in content. It contains a multitude of things, which no man can number, existing in multitudinous relations. Many relations that we know something of, we, for most of our purposes, ignore. Of the significance of many relations that we glimpse we are ignorant. Of the very existence of many relations we are in total ignorance. But, either the universe is in some way a system or order of related entities, or there is no universe.

2. There are many distinct types of order. The categories of the philosopher and the scientist are just generic names for the basic types of order. The whole business of systematic philosophy

or metaphysics is to consider the various types of order and to try to order them into a comprehensive order system. Mathematics and logic are the theories of formal or abstract intellectual order. Metaphysics is the doctrine of concrete or real order—spatial, temporal, causal (physical, vital and psychological), teleological or axiological, social orders. Our further discussion will be concerned principally with these orders and their relations.

3. All special types of order must be elements in the total-order-system of reality—the cosmos. To deny this statement would be to assert that, while there are various systems of order in the universe, since these have no relation to one another they are not in the universe, since there is no universe to contain them. But we know that the spatial and temporal relations are bound up with causal and teleological relations. We know that when we pass from abstract symbolic logic to the logic of reality, we have entered a realm where all orders and, therefore, all relations and entities related "in one another's being mingle." It is not possible to sit down and try to think through to the bitter end any fundamental problem of reality—for example, the nature of space or time or causality, or the nature of mechanism in its relation to life, personality and value, without running into all the other problems.

All special order systems, then, are probably grounded on one supreme living order. In so far as reality is a cosmos or universe, and not a chaos, it must be sustained by one ground—a cosmic order-of-orders. And, since the universe, as we live in it and know it through living in it, is dynamic, the cosmic principle or ground of order must be a dynamic or active principle.

4. The final problem of metaphysics is this—what can we say, specifically, as to the character of the cosmic ground of order? Book V will be devoted to the consideration of this question.

CHAPTER XIII

ORDER[1]

Order is the most fundamental and inclusive type of relation. Indeed, every objective and intrinsic relation depends on an order —spatial relations on the spatial order, temporal relations on the temporal order, social relations on the social order, etc. The chief difference between the meaning of the two notions is that when one speaks of relation one may have in mind only the principle of connection between two entities, whereas when one speaks of an order one definitely implies the whole existential complex, the particular or individual relata and their relations taken as a whole. Thus an order means a system of particulars or individuals connected in a regular manner, by contrast with both a collection of abstract relationships or subsistents and a mere junk heap of unrelated existents.

The entire realm of experience includes a variety of distinct types of order. It is the business of the special sciences to determine, in their respective fields, the basic types of order. It is the business of metaphysics to survey these various special types of order and to order them, if possible, into one order system or intelligible cosmos. Every order is a one-in-many, a unity or continuity in difference, a systematic togetherness. The ultimate order would be the *Ordo Ordinans* or supreme order, of which all special orders would be partial expressions. If, as Spinoza said, the order and connection of ideas is the same as the order and connection of things, then the ultimate order has a two-faced series of manifestations. Spinoza's statement oversimplifies the case, as will appear later when we discuss the mind-body problem. I shall argue that it is a reasonable hypothesis that the various special orders of

[1] The following chapter is a rapid survey, or preliminary sketch, of the main line of argument and doctrine that will be developed step by step in the entire remainder of this work. Together with Chapter 35, this chapter gives the logical key to the whole body of the discussion. The reader should bear it in mind and return to it in considering the later parts.

existence constitute a hierarchical series, and that the supreme principle of order is most adequately manifested in the richest type of finite order. There is, however, another sense in which Spinoza's statement is true—namely, that order is at once mentally objective and physically objective; there is a correspondence between the order of true thinking and thoughtful willing on the one hand and the order of physical reality, the space-time-motion order, on the other hand.

In books III, IV and V we shall be concerned with the concrete characteristics of the various main types of existents and with their relations to one another as aspects of the cosmos. A rapid survey of the hierarchy of order series will make a logical transition to III. Every order involves particulars in relation.

1. *Qualitative Order.*—The simplest cases of order are perhaps those of the generic orders of sense qualities. Colors are each and every one distinct existents, but they form a scale of order; so with sounds, temperatures, etc. There are orders of intensity; for example, degrees of brightness, color saturation, pleasure, pain, pitch, etc. It may be that the order of qualitative differences within the same sensory kind is in every case reducible to the order of intensive magnitude or degree.

2. *Spatial Order.*—Our three dimensional space involves a number of orders, such as—points on a line, lines on a surface, depth, sense or direction, before and behind, straight ahead, above, below, right and left. Every spatial order involves relations between particular positions existing simultaneously. The most familiar instance is the relation of all observed positions to the observer's position. Positions are the individua of spatial order. One set of spatial order may be transformed into another, by superposition, translation, or by imagining the observer translated, inverted, etc. The mind can manipulate spatial order in various ways, as in geometrics; but it must first find spatial order before it can juggle with it; and transcendental geometries are logical jugglings of the empirically found spatial order. In brief, spatial order is given as real in sensory experience and found to be intelligible—that is, intellectually manageable within the limits of its given nature.

3. *Temporal Order.*—This again is a simple and unique property of experience as lived (*Erlebniss* is the expressive German word). It is the irreversible flux or movement of experiences from

past through present toward future.[2] Temporal order has thus one sense or direction. (It seems to be misleading to call it a "dimension" and to speak of time as a fourth dimension of space. It would be just as correct to speak of space as the second, third and fourth directions of time). Space and time involve each other, since spatial orders imply the simultaneity of points and directions; that is, their temporal duration; and the temporal order of duration involves the occupation of moments or instants by positions. I have said that temporal order is single as well as irreversible. These statements are questionable. Could it not be said that temporal order is double—that it has two directions or senses, from the present backwards to the past and forwards to the future; and if this is so may not temporal order be reversible? Mr. Bradley argues for a variety of time series—one, for instance, in which death is followed by old age, maturity, youth, childhood, birth, conception. I can conceive of one finite temporal series as being the exact repetition of another, but I am unable to conceive of one infinite temporal series of real events being the precise reverse of another. Such a supposition would, it seems to me, imply that one of the series in question is illusory or imaginary, one of Leibniz's possible worlds. There may be an indefinite multitude of temporal series, with different rates of velocities, but they must all have one direction, if experience be not wholly illusory. The empirical temporal order is one direction, since the past does not grow out of the present but the present out of the past as the future out of the present. The temporal order, in the forms of either the perduration of a system of relations through a stretch of time or a definite sequence of distinct events, is basic to all conceptions of continuity.

Whether it be spatial continuity, numerical continuity, durational continuity, or causal continuity; in every case the idea of continuity is that of an order of permanent or regular relations enduring through a temporal succession. (Compare Chapters XIV, XVI, XVIII, XXXV, and XXXVII.)

4. *Numerical Order* arises, as we saw in Chapter XI, from the location and arrangement of sense qualities in space and time, but numerical ordering of existents always implies a judgment of value. If one is counting or measuring things without regard to

[2] For Bergson, time is the unique dimension of life. Real time is livingness.

differences of value the question of order is indifferent. If I am considering how many books I have, regardless of their contents, it makes no difference in what order I count them. If I were arranging them for sale I should do it in the order of their values. When we arrange things in numerical order; for example, the batting order of a baseball team, the order of precedence at a social function, the order of merit on examinations, orders of greatness in statesmanship or art, we are using ordinal number to express an order of values. Thus the order of values is implicated in the ordering of existents. Indeed it is tied up with our simplest spatial and temporal orderings.

5. *Causal Order.*—A causal order is an irreversible series in which the occurrence of one event is an indispensable condition of the occurrence of the next event. Thus the causal order is a temporal order which involves the idea of the existential dependence of one event on the immediately precedent events. Existential, temporal dependence differentiates the causal order from a logical order of timeless implication (ground and consequent). The notion of causal order is thus a more concrete form of the notion of temporal order. The irreversibility of the temporal flux implies that the preceding instants or moments contain the real conditions of the present, that a specific complex of qualities in relation is the condition of a succeeding complex. The maxim, every event must have a cause, means nothing more than that in the flux of experience the antecedent is the condition of the coming into existence of the consequent. The fallacy of *post hoc ergo propter hoc* is a fallacy only because of lack of thorough analysis of repeated observations. We have really no other ground for asserting a causal relation than that of immediate contiguity and succession of events in the spatial and temporal order. The supposed necessity of the causal order is the universal empirical fact of the one-directional, irreversible flux of temporal experience.

A causal order, considered as a blind push or inevitable procession in which each successive moment is made by the rearrangement in space of the factors in the preceding moment, in which one collocation issues blindly in the next collocation, and in which there is complete quantitative and qualitative equivalence in the two collocations, is a *mechanical* causal order. There are close approximations to mechanical causal orders in the realm of inorganic nature; but, since new collocations give rise to new assem-

blages of qualities, it may be doubted whether even the inorganic realm is wholly mechanical. Indeed, if the second law of thermodynamics be valid, this cannot be the case.

6. *Teleological Order* is a causal order in which the successive moments are not the blind and inevitable products of the rearrangements of collocations of atoms, but one in which a unity of plan or meaning pervades and is developed through a series of moments, which thus constitute not a mere serial sequence of slightly differing events but a persisting whole which is present in all its parts and makes of them an organic totality. The teleological order is a temporal and causal order which unifies its successive moments in a trans-temporal totality. Here we begin to get a clew to a principle of cosmic order or organization that is temporal and yet permanent, many and yet one, including a succession of events in a noneventual meaning, causal and yet purposive. It is sometimes said that teleological causality involves the determination of the present by the future. This is misleading. It involves the unification or continuity of the present with the past by a plan or meaning which is continuous with and expands into the future as the latter becomes present. It is in the organic, mental and social orders that we find teleological order.

7. *Organic and Mental Orders.*—These I treat together since it is in the mental-teleological order that the meaning of the organic order becomes manifest. An organism is a whole in which the parts cannot exist apart from the whole and the principle of the whole functions in all the parts. An organism may be regarded as a machine, since it consists of mechanisms; but, since it is a self-running, self-repairing and self-reproducing machine, it is more than a mere machine. The order of life exhibits a large number of degrees of organic unity emerging from, supervening upon, and controlling mechanisms. A mental order—for example, a single type of purposed human activity, or better still the organized unity of a whole human life as the continuous fulfillment of a plan or a meaning—is an order in which the successive steps or moments are not external to one another and not the blind rearrangement of similar elements. One moment or act does not placidly dissolve its elements to be blindly rearranged into the next act. A continuous plan or meaning embodied in a whole life is an order in which the particular acts and experiences interpenetrate, since they are all pervaded and organized by the principle of the whole.

The past lives in the whole of the present and the present is big with the future, and past, present and future are phases in the living unity of a unique and individual life and experience. Perhaps the supertemporal or "eternal" meaning of life and the cosmos will be found in the notion of *Spiritual Order* (see Chapter XXXV).

8. *Axiological Order* or order of values. The achievement and conservation of intrinsic values—such as welfare, happiness, love, beauty, truth—are the determining or unifying and controlling principles in the teleological order. To discuss the nature of values and their place in reality at this point would be to anticipate future chapters. It is sufficient here to point out that the order of values enters into our ordering in other orders; even ordering existents spatially, temporally, numerically and causally involves ordering in terms of values. In the organic and mental orders values appear explicitly, and in their own right, as determining principles.

9. *Social Order.*—This is the richest and most inclusive type of order. It is *par excellence* a teleological and axiological order. Social organization, the institutions of politics, law, morality, education, religion, science, art and letters—in short, the whole work of culture—is a complex of partial orders in which the superindividual order of society is furthered. It is an old saying that a man realizes his true being in the social order. The truest individual, the fullest personality, is the one who is most nearly typical, universal, or super-individual in his thinking and his deeds. As we shall see more fully later on, the social mind is not an entity which exists as such apart from the minds of the individual members of the social order. But the social mind is more than the mind of any individual as he actually is when taken in isolation from his fellows. It is not the arithmetical sum of the minds of the individual members of society. In becoming the organ of the purposes of society, in making himself the instrument for the realization of the cultural values of the social order, the individual is transcending his given individuality. The mind of a nation, the mind of England, for example, or the spirit of the church or the university, live and move and have their being in the members of the social order; but they are more enduringly real than the individual members regarded as private centers of feeling and thought. They transform the individuals by giving them

membership in a spiritual order which is not the sum of individual feelings, thoughts and volitions; for the spirit of a society is one which binds human souls, past, present and to come, into a living and enduring unity. This conception of a spiritual order which is more pervasive and enduring than any individual mind will be considered more at length later on when we come to discuss the problem of the ultimate order or cosmic unity.

CHAPTER XIV

THE PARTICULAR, THE UNIVERSAL AND THE INDIVIDUAL

The "things" of immediate sense experience are discrete complexes of sensory qualities. But these discrete things are all perceived and conceived to be present simultaneously in a continuous medium, namely space. Common sense means by the continuity of space that no two portions of space, however minute, are separated either by no being or by nonspatial being. What common sense means by empty space is a portion of space in which our efforts meet with no perceptible resistance; and in which, through our senses of sight, touch and movement, we are conscious of no movement or resistance. So-called empty space is not literally empty since we perceive light, color and atmosphere in it. It transmits movements not detected by the unaided senses; such as radio-active transformations, electromagnetic tensions and gravitation. The universal space-filling ether is assumed to exist as the continuous medium for the transmissions of these movements and forces. As Lord Salisbury said, ether was invented as a subject for the verb "to undulate." Indeed, it is a postulate of theoretical thought and of practical activity that there is dynamic continuity everywhere in the realm of nature. Static continuity is simply our coarse, in-the-lump way of perceiving dynamical continuity.

On the other hand, physics and chemistry find cogent grounds for the hypothesis that the concrete things of sense perception are made up of very minute and imperceptible corpuscles (electrons in the newest form of the corpuscular hypothesis) which are constant in inertia or mass and in their attractive and repulsive mutual relations (valence in chemistry). It is impossible to believe that perceptible matter is absolutely continuous, in view of its enormous capacity for expansion and contraction. The phenomena of the expansion and contraction of gases, of solutions and of osmosis, are impossible to account for on any other hypothesis than that of the granular structure of matter. In the elec-

tronic theory of matter the ordinary atom is regarded as built up out of a core or nucleus of negative electricity with the units of positive electricity revolving around it. Mass or inertia is present wherever there is potential energy.

We are not here concerned with the question of the ultimate structure of physical matter. The granular theory carries out, to a high degree of refinement, the logical demand for discrete elements to account for the qualitative discreteness of perceived things. On the other hand, the physicist finds it impossible to work out a granular theory without postulating some sort of continuous medium as carrier of the dynamical relations between the corpuscles. The ether performs this logical function in present day physics and thus logically is identical with physical space. If the ether should be scrapped, some other medium will have to be invented to take its place. For both common sense thinking and physical theory, which is a refinement of common sense thinking, require the recognition of both discreteness, or particularity, and complexity, in the elements of the world and of continuity or systematic interrelatedness between these elements. At one time continuity may be uppermost and at another time discreteness, according to the problem in hand. If one is bent on microscopic analysis of sense data, discreteness plays the principal rôle; if one is bent on synthesis, continuity bulks largest. From the analytical point of view, the discrete elements are substantive and continuity is transitive. On the other hand, from a comprehensive or synthetical point of view, continuity is substantive. A ground of interaction must be as real as the multitude of individual elements that interact. It is obvious that here we have to do with a capital phase of the metaphysical problem of singularism and pluralism, of the one and many. The universe must be some sort of one-in-many. The acute problem is as to which is more fundamental, the manyness of the individual elements, or the oneness of their ground of interrelation.

The whole problem of discreteness and continuity, pluralism and singularism, takes on a new turn when we consider the world as a temporal process. Experienced change is a succession of discrete movements since, as William James puts it: empirical time comes in drops;[1] the present moment is a single pulse of experi-

[1] *Cf.* James, *Some Problems of Philosophy;* especially Chaps. 10 and 11.

ence, in which is fused together a variety of features; any two successive presents are more or less discontinuous. What I experienced an hour ago is discontinuous with what I now experience. When we bring into our purview months and years, the discontinuity becomes more striking. When we take into account centuries and millenniums of history, the discontinuity becomes still more striking. Temporal or historical series are discrete. All the past events which one can think of have ceased to exist and no two of them were absolutely alike, otherwise they would not have been two but one. The history of a single organism, of the human individual, of a nation, of a church, of the evolutionary series of living organisms, of a planet, of a solar system—all these histories are discrete series, stories of the development and decay of individual wholes.

History or development involves novelty—the emergence of new individuals, their transformation and disappearance. There would be no meaning in history, evolution, development, if there were no novelties, no new qualitative syntheses, no emergence of differing individualities. A temporal or historical world is thus essentially a world of discreteness, of novelties. If the new were the same as the old, the effects identical with the causes, the succession of individualities a bare repetition, development and decay, evolution and retrogression, would be equally without meaning. The distinctions between pasts, presents, and futures would vanish. On the other hand, the logical and practical demand for continuity is equally in evidence in our study of the historical world.

Unless there be traceable continuity in the process, there can be no grasping of sequences or steps as serial. A process that is not continuous is not one process, but a chaotic procession of disconnected episodes. Thus, without reference to continuities of some description, history and development are meaningless. Through fragmentary consciousness and meager materials of memory, we construct a belief in the continuity of our own personalities. Through fragmentary historical record we construct the continuity of a nation's life, of a cultural movement, of the life of humanity, of life on the earth, of the solar system. We trace the development of the spirit of England as revealed from age to age, of the spirit of Christianity, of the evolution of life, or the solar system. Thus the notion of *historical continuity* is a conceptual construction, not a matter of immediate experience. Nevertheless, it is motivated

by both practical and theoretical postulates—the theoretical desire to comprehend the successive steps in the life of any individual whole as constituting an ordered sequence or series and thus being an individual whole; the practical desire to gain, from the ordered continuity of the past, prevision and control of the future through the present or at least inspiration and guidance for action.

Finite number is a discrete series, unfolding according to a perfectly determinate law of production; physical changes have been, to a considerable extent, shown to be subject to numerical laws of production. Why not then all historical changes? The mechanical-causal postulate is extended in thorough-going fashion to all fields of history or development, and means that there is a perfectly determinate law of production for a series of events. All so-called novelties would then be wholly predetermined. The variations and individuations in the process of time would be the inevitable consequences of a perfectly determinate system of laws, expressing the behavior of an equally determinate number of individual units alike in every respect, except for their space relations. Novelty and individuality would thus be nothing more than the effect produced on man's mind by the space redistributions in the arrangements of elements having eternally constant properties of inertia or mass; that is, of simply mechanical attraction or repulsion.

But our actual world is a historical world, a world of developing and changing individuals of many descriptions (I use the term "individual" to include organisms, persons, nations, cultural movements, the system of living beings, the earth, the solar system). The denial of novelty, of individuality and development, is the denial of the most characteristic feature of the actual world. In it there is verifiable continuity, dynamic interrelation, between successive states. The whole universe is an all-inclusive living individuality or system. But since there are, and in the measure in which there are, in the universe, discrete centers of action and passion, concrete individuals, there are limits to the causal explanation of the qualities and actions of any individual member of the universe in terms of the rest of the system. The explanation of the life history of one individual member of the system cannot be found wholly either in the antecedent phases of the system or in the simultaneous phase of the system. It must be found in part in the self-active character of the individual member. In short, there

are two kinds of temporal continuity: (a) the mechanical continuity which would account for the character and state of every finite individual as being the mathematical expression of forces behind and outside that individual; (b) the teleological continuity within the life history of an individual (including those individuals which are groups of lesser individuals) as being a unique self-active member of a larger system. In other words, the actual historical world is one of *creative novelty,* of genuine development. Real history is constituted by the self-development of individuals in interaction.

It must be admitted then that discreteness, or qualitative uniqueness, and self-activity or individuality, are just as elemental features of the world as continuity. Perhaps they are even more elemental. The universe seems not so much one as it is many—many individuals of many kinds in many relations.

There appears to be a quarrel between the concrete individuality of actual intuition and the results of analytical science. The latter tends to evaporate an individual into an aggregation of qualitatively poor atoms, brought together and held together by purely external relations. Psychology dissolves personality into sensations and impulses or, more recently, into reflex movements, and these into neurone processes. Bio-chemistry dissolves neurone processes into reactions of the chemical elements. Physics dissolves the chemical elements into constellations of electrons. Thus, concrete individuals are reduced to an external exemplification of more elemental qualities; and the latter, in turn, to spatial arrangements of elements having no qualitative differences except physical attraction and repulsion. Thus physical or mechanistic metaphysics reduces all other qualities, and hence all individualities, to variations in the spatial arrangements of units having only two qualities—negative signs and plus signs in electricity. The analytical and generalizing activity of science ends in the elimination of all individuality. Since individuality thus disappears before the destroying hand of analytical intelligence, recent philosophers, notably William James and H. Bergson, have argued that we can know reality only by abandoning intelligence or reason and laying hold on it through intuition, since it is thus that we apprehend individuality in ourselves and others. This, it seems to me, is a poor refuge, based on a one-sided conception of the nature of intelligence or thought. I propose, therefore, to consider here

what the relation of the individual is to the universal from the point of view of reflection.

Clearly, the individuating interest is everywhere in evidence in naïve thought, action and feeling. In perceiving and interacting with the physical order, in recognizing and holding intercourse with other selves, man never apprehends a general quality or universal, a *what* divorced from an individuated unity of qualities, or *that*. It is only in the vague and rough philosophizing which consists in hypostatizing abstractions and symbols that one ever falls into the error of thinking that any sort of reality can be an abstract universal, a bare *whatness;* such as being in general, color that is no specific color, justice that is no specific case of justice, etc. The realities that we recognize and hold intercourse with in thought and action, that we appreciate in feeling, are always determinate. The selective interests, the specific desires and aims, which motivate action and thought lead to the individuation of things. Selective individuating interest is the controlling principle in human life. The world of his experience responds to man's individuating interest. It presents to him an ascending series of individua; from the bare particularity of the grain of sand or dust, through the crystal with its individuality of space arrangement, and the unified complexes of qualities which through their immanent organizing principle constitute plants and animals, up to man himself in which the organizing activity is in part controlled by conscious purpose.

What then is a true individual? The *particular* is frequently confused with the individual. The former connotes the merely isolated single object in its bare isolation, the mere *that* almost wholly unqualified by relations. The individual is the particular grasped in a context, and as a unified whole of various qualities-in-relation; that is, as a *system*. To appreciate the individuality of any object of cognition or feeling one must determine its character as a whole in terms of universals. One must say *what* it is. The bare particular is unmeaning and indescribable, because it is not grasped as a concrete union of different universals. Its *that* has no *what,* consequently its *that* is a vanishing point. The true individual is a concretion of universals.

A true individual is an internal or immanent unity of diverse properties, with self-activity which issues in self-maintenance and self-development. It must have richness or complexity of qualities

and it must, as a unity, own these diverse qualities in some degree of harmony. Unity-in-diversity and self-developing-activity then are the indispensable attributes of individuality. Comprehensiveness and harmony must both be present. It is evident that we find these characteristics fully manifest only in conscious beings, that is, *in selves.* An immanent dynamic system of self-developing capacities is just what is meant by the teleological unity of selfhood or personality. It is true that in the lives of selves fixity of purpose and unity of character may seem to be sacrificed by wide diversity of interests and activities, as in the dilettante pursuit of art and letters; and *vice versa,* breadth and variety of interests by concentration and persistence of purpose in one direction, for example, in the money grubber. But genuine harmony is not monotony. It is the organization of diversities of action, feeling and thought. In the end breadth and variety of interest must bring the richer individuality. True individuality involves in some degree universality of aim and interest. The self becomes a universe in little by seeking universality, in the sense of concrete organization and harmony or maximum comprehensiveness in life and experience.

The degree of individuality possessed by any being is the measure of its worth. The principle of individuality or personality is the supreme principle of value. The individual is the center of reference for interests and valuations or appreciations. It is very obvious that our vital interests in social life are in individuals; in brother and sister, lover and wife, friend and enemy, colleague and neighbor.

Masses of men interest us only as actual or potential groups of individual agents. A political speaker or a preacher is interested in a mass meeting only as a group of individuals who will react favorably to argument, emotional appeal, and suggestion. Churches, political parties, social, scientific, and literary movements, are individualities of more comprehensive type inclusive of a plurality of persons. In art, in the drama, in fiction and history, the controlling interest is always in the presentation either of the character of single individuals or of the spiritual and significant unity of more inclusive systems of individuality. Shakespeare's *Hamlet* or *Tempest,* Goethe's *Faust,* Dante's *Divine Comedy,* Milton's *Paradise Lost*—these are all types of spiritual individual wholes. Their universal significance is contained in their spiritual

unity or harmony of feeling and action. The controlling interest in history is in the individual actor in his unique social and political relations; Julius Caesar, Napoleon the First, Luther, or Bismarck; the unique social or spiritual-historical movement, Roman Imperialism, the French Revolution, the Origins of Christianity, the Protestant Reformation, the European Renaissance; the unique fortunes of individual nations, Ancient Greece, England, France, the United States. A great work of art, a historical culture-movement, a political development, a religion, is significant just because it is a comprehensive unity, a living organization of spiritual life, a *superpersonal life.* The general tendencies, laws or forces, of life and history have actuality only as they are concreted in the individual whole, in selves and systems of selves. In every field the universal has the function of defining and expressing the relationships of individual elements in individual systems or complexes. The individual, out of reference to a systematic whole, becomes a barren and insignificant particular. The universal not concreted in individuals is nought but an equally barren abstraction, a mere abstract general notion. To sunder the *what* or universal from the *that* or specific reality is to deprive the latter of all meaning and value and the former of all existence. The real is always the significant individual, the immanent unity of diverse qualities and relations, and the world-whole is the all-inclusive and richest individuality.

It is often said that thought cannot grasp the individual and unique, since thought is discursive in operation. It abstracts and generalizes. It must thus sunder the *what* from the *that.* If therefore the real be individual, thought can never grasp its essence. We may then, perhaps, feel or intuit reality, but we can never comprehend it, since to do this we must distill and evaporate the individual and unique into the general or common. Emotion and intuition are the sole individuating functions of mind, we are told, and all intelligent thinking must lag behind them. I cannot admit this severance of thought and feeling, of intellection and immediate experience. The development of feeling and volition is conditioned by the organizing activity of thought. Through reflection feelings becomes more articulate and significant. Through thought conation becomes, in place of random impulse, the persistent and more harmonious development of purposive volitional unity. Thought does not function in the blue ether, it

does not wing itself through the inane. In all genuine cognitive thinking there is an intuitive factor. Reflective comprehension does not descend from heaven upon immediate experience. The former grows out of the latter and is inextricably interwoven therewith. I know myself, and I know other selves, through the constructive *interpretation* of immediate experience. Instead of contrasting and separating intelligence and intuition, as Bergson does, I would maintain that they cannot properly be divorced. Both in cognition and conation, intelligence and intuition are complementary factors. The great scientist has not less but much more intuitive insight than the clodhopper. The great poet has not less but more intuitive vision than the hack writer. The great statesman has not less but more intuition of the political nature of man than the ward boss. In every case the more is due to the more intimate interfusion of reflective intelligence and immediate experience. As Kant put it, percepts without concepts are blind.

But does not science deliberately abstract from the individual, and treat it merely as an example of the universal, a junction-point of concepts or laws? Matter, motion, energy, ether, natural selection, gravitation, with their more specific subsidiary formulæ—are not all these categories of science purely abstract general conceptions to which the individual is wholly indifferent? Is not the quest for laws of connection and sequence a search for the universal and a neglect of the particular? For example, must not history, in order to become scientific, relinquish the depiction and interpretation of so-called great personalities as creative centers in the historical life; cease to regard so-called great creative periods such as the Periclean age of Greece, the Renaissance and Protestant Reformation, as having more inherent significance or mental causality than any other section of history of the same length of time; and become "sociological" by showing that all such personalities and individual movements are but the inevitable resultants of universal forces such as economic and climatic factors? Will not the history of the future become a deductive science in which the individual will be viewed and explained simply as a junction point of sociological laws and formulæ? I am not concerned here to discuss the proper methods and province of history, but I wish to point out that the economic, geographical, and climatic factors in history have themselves individual characters and significance in relation to the psychical factors. The physical and economic

factors of social life themselves undergo changes which are implicated with the whole mental movement of man in history.

It is true that physics and chemistry operate with (approximately) fixed constants and regard their facts as constellations of particulars rather than as unitary individuals. The special sciences may be classified in the order of the ascending concreteness or individuality of their respective subject-matters. Beginning with *terrestrial and solar physics* the most "abstract" or general science, we have next *chemistry,* which deals with more specific properties of bodies, then *biology* whose objects have more determinate or individual character, then *psychology* whose objects are the highly individuated bodies in which consciousness is predominant, then the *social and historical sciences of culture* (*general history, the comparative study of morals, politics, religion, and art*) which deal with the most concrete and spiritual types of historical individualities. Finally, we have systematic ethics, æsthetics, philosophy of religion, and metaphysics, which are concerned with the ultimate significance of spiritual individuality. This contrast, however, does not mean that physics has no concern with the individual character of reality and the culture sciences no concern with generalization. It means rather that the individual fact of physics is more abstract or poorer in its qualities and relations than the individual facts of history, the human social order, the moral life, the æsthetical or religious experience. The order of the sciences corresponds to the increasing richness and concrete significance and value of their objects. The world of the physical and biological sciences is too a world with a determinate individual character and evolution. It is in reality a historical world of a lower order. For example, the study of radio-active manifestations and the law of Mendelyeev suggest that the chemical elements have had a history with a determinate evolution. The second law of thermo-dynamics indicates that the solar energy has a determinate history, a specific individuality of its own. The various theories of the evolution of the solar system, of the earth, and of life on the earth, involve determinate histories of individual wholes of increasing complexity and inclusiveness.[2]

It is a misconception of science to say that its sole aim is to

[2] On the whole subject of history and individuality compare, Heinrich Rickert, *Die Grenzen der naturwissenschaftlichen Begriffsbildung. Zweite Auflage.*

establish general formulæ or laws which shall express the bare identities of objects whose differences are negligible. The particular facts of chemistry or biology are not adequately understood, if they are viewed simply as repetitions of similarities in quality and behavior. This may be the goal of pure mechanics. But even in mathematical physics the aim is the formulation of differential equations for motion and other forms of continuous physical change.

The particular fact when seen in its relations then first becomes a scientific fact. Science does not consist in collecting particulars; this is but its preliminary spade-work. The interpretation of the particular in the light of universals is the goal of science. In other words, it is the particular become individualized, through taking its place in a cognitive system or having membership in a organized whole. One who has only an "abstract" or "general" notion of energy, or gravitation or electricity has not a genuinely scientific conception of these things. Recognition of this is expressed in the confession of relative ignorance when one says, "I have only a *general* idea of the subject." To have a scientific concept of anything involves a knowledge of the varied and determinate modes of behavior of the thing in question, that is, the laws of its specific transformations. As Lotze says, the concept of anything is the law of its states. The truly scientific concept of energy, for example, is filled in with knowledge of how energy behaves specifically in its different forms and under varying conditions. The general notion is a short-hand expression for certain basic qualities of behavior by virtue of which individuals constitute an ordered group system or series. The concept man or mammal is not a mere extract of repeated similars or bare identities in a class of objects. It is a principle of relation which expresses at once the differentiation of the group which it designates, from near but contrasting groups, and the identity or continuity of features which, as specified in the individual members of this group, constitute it a significant serial totality. The universals which define individuals and groups are the laws of systematic series, functions of thought which express the order of relations by which individuals are members of more comprehensive wholes.

A human person becomes not less but more individualized and significant when he is found to be describable in many relations

or universals. To know a man as a worker in a certain field, a citizen, a husband and father, a lover of poetry and art, a sportsman, a churchman, a friend, is to know him infinitely better than simply as a nodding acquaintance or even a business associate. In place of seeing him as a vague particular or unit, when I come to know him in all these relations he becomes a more concrete universal, a truer individual.

There is no doubt that it is the self-intuition of one's own individuality and one's selective purposive interest that is the subjective spring of individuation in one's intercourse with the world. On the other hand, it is equally true to say that one's intuition of one's own individuality is defined, and one's purposive activity is determined, through the give and take of social intercourse by way of action and passion with other individualities. The development of cognition, conation, and feeling in the self is the growth of the individual in a world of individuals. Only as member of a universe of individuals does the single self come into his own. The progressive definition or determination of the self is the progressive discovery, through action, thought and feeling, of a world of individuals. The movement towards richer and more harmonious individuality or personality is, I shall aim to show more fully later in the discussion, the meaning of the world process. This meaning is realized through its exemplification in a multitude of selves which, as individuals in relation, are members of a higher individuality or, if you will, of a superindividuality. It would, however, be misleading to say that the ultimate reality, or the universe in its totality, is an all-inclusive individual or the absolute individual. That would imply that the relation of finite selves to the absolute individual is simply that of parts to the whole. Ultimate reality at its highest level must be a society of selves or persons, whose ground and pattern, may be indeed, a supreme individual or self, but whose members, having relative self-activity are related to that self not as parts of his being but as offspring of his creative activity, endowed with the capacity to live in relations to him analogous to their relations to other finite members of the whole society.

The finite individual is a dependent but active center of reality, able progressively to harmonize his inner being, and therewith his relations with other finite members of the ultimate society and with the source and ground of the whole.

CHAPTER XV

SUBSTANCE

The most far-reaching distinction made with respect to the data of experience is between *persons* and *things*. This distinction has grown out of a distinction between living beings and nonliving things. These distinctions were not made in primitive thinking. For early man, as for the child, there was no clear separation to be drawn between inanimate and animate objects; nor, among animate objects, between persons and living beings who are not persons. The primitive philosophy is *animistic,* or to use Mr. Marett's term, *animatistic.* (*Zooism,* meaning that all things are alive is a better term for the primitive world view.) We are not concerned here with the genetic question how these distinctions came to be made, nor are we at present concerned with the question of their ultimate validity. Our present concern is with the problem: how are we to think "things" consistently, and this problem will lead us directly into the problem of substance.

The thing is a determinate complex of qualities. An apple, for instance, consists of a determinate roundness, redness, texture, savor, cohering by being present together in one space-time configuration. What we call a "thing" is relative to our interests. An apple is one thing for the buyer and eater. An apple seed is a thing for the orchardist. Its cells are things for the botanist.

The unity of the thing is conceived after the analogy of the unity of the self in recognizing the thing. For, just as the self is believed to have certain permanent interests and a consequent unity and continuity of being, known through memory and reflection, which unity and continuity persist through varying circumstance; so a thing is a *persisting unity* of diverse qualities. Indeed, the recognition of the unity of diverse qualities which constitutes the thing, is quite dependent upon the unity and continuity of the self's interest therein and attention thereto. Hence, there is no logical difference between the problems of the relation of

the unity of the thing to the diversity of its qualities and of the continuity of the thing through the changes in its qualities, and the problems of the unity of the self amidst the diversity of its experiences and of the continuity of the self through its changing experiences.

Ever since Plato, dialecticians have exercised their subtlety on these problems. It will suffice here to note briefly what the problems are and how they lead into the problem of substance and the various solutions thereof.[1] First, what is the relation of the thing to its qualities? What is the relation of the thinghood of the apple to its roundness, redness, sweetness, etc.? If the apple thing is just roundness plus redness plus sweetness, etc., then the distinction between the thing and its qualities vanishes. If the apple thing is not the empirical quality-complex but a substrate underneath and supporting the qualities, then we must have a relation to unite the qualities with the thing. But if the relation, *r*, is something *between* the real thing and the empirical qualities, then we must think a relation r^1, to unite *r* with the thing and another relation r^2 to unite *r* with the qualities; and there is no end to this process of assuming relations to relate relations that are between other relations. Thus, the more thoroughly we try to think out the relation of the thing-substance or substrate to its qualities, the wider apart they fly. We have set out upon the endless regress and we never can get the two terms of our naïve proposition, "the thing is the union of its qualities," together.

Again, redness is not roundness and neither redness nor roundness is sweetness; how then can they all cohere in *one* thing? Furthermore, the qualities of the thing change; the apple grows, ripens, decays, or is eaten and ceases to be an apple; but *when* does it cease to be an apple? In Mr. Bradley's illustration: Sir John Suckling's silk stockings were darned with black silk yarn until there was nothing of the original green silk left; were they still the same stockings? How can a thing preserve its identity

[1] For recent discussions of these problems see F. H. Bradley, *Appearance and Reality*, especially Chaps. 1, 2, 3, and 8; A. E. Taylor, *Elements of Metaphysics*, Book i, Chap. 4; William James; *A Pluralistic Universe*, Appendix A, "The Thing and its Relations"; J. Royce; *The World and the Individual*, Vol. I, especially Lecture iii; Lotze, *Metaphysics*, Book i, Chaps. 1, 2, 3, 4; *The Logic of Hegel*, translated by Wallace, especially pp. 232 ff.; also pp. 273 ff.; Alexander, *Space, Time and Deity*, Vol. I, Book ii, Chaps. 6 and 10 and Vol. II, *passim*.

through change of qualities, if it be but the sum of its qualities? If it be not the sum of its qualities, is it anything whatsoever? Briefly, if the thing is identical with its qualities, it is not a thing-substance and there are no qualities, since there can be no distinction without relation, no qualities without distinction from and relation to one another and to the thing which owns them; no thing without distinction from and relation to its qualities. On the other hand, if the thing be not identical with its qualities, then the thing is a meaningless abstraction, an *unknown* mysteriously supporting the qualities.

The argument that a thing cannot exist as a complex of qualities, since each quality is other than or different from every other, is a mere quibble, if it be taken to mean anything more than that the qualities of empirical things are recognized only as discriminated and related to one another. No determinate quality, and no group of determinate qualities, is known except in relation to others. Empirical reality is a system or totality of qualities in relation. Furthermore, it is impossible to conceive reality as a whole in any other form than that of a system of determinately qualified beings in relation. If we are led, when we think out the logical implications of experience, to the notion of one world ground or cosmical order, that too can only be conceived as one ground or order in the sense of being the *systematic totality,* the unitary ground, of finite beings in relation. Thus the absolute is nothing more than the totality of the related. Such is the legitimate argument of the dialectic of experience.

To return to the problem of the thing and its qualities, a "thing" is a name and a concept for an empirical complex of qualities. "Apple" is a name for the coherence in one space-configuration for several moments of time of a complex of sense qualities, or the persistence in time of the coherence of this complex in a series of positions. "Apple" is a conceptual name, because there are several instances of a similar coherence of similar qualities in various places and in various times. These cohering qualities which are an apple have specific meanings for human interests and purposes. So long as the qualities persist in a degree sufficient to satisfy these interests and purposes, we call it the same thing, and several same things are the same *kind* of thing. When the apple ceases to be edible and salable it ceases, for those purposes, to be an apple. When its seeds cease to function as

seeds, they cease to be seeds. Thus, the continuous unity and identity of the thing consists in the unity and continuity of its *empirical functions* in relation to the interests and purposes of men as perceiving, desiring, acting and thinking beings. Hence, so long as you can treat a thing as the same, for that purpose it is the same. Thus a "thing" is a teleological or pragmatic construction, by the mind, of the complex data of actual experience. Ultimate things or substances could only be those which satisfied the most fundamental and enduring purposes of human thought and action, or which constituted the final limit to analytic thought. If there be any purpose in human thought which is most basic and all-inclusive, and if there be any concept of substance which satisfies or is the limit of fulfillment of that purpose, this will be the ultimate concept of being.

The concept of *substance* has its source in the quest for a concept of essential being. It was developed to satisfy the demand of thought for a permanent type of being. There are two correlative notions involved in all concepts of substance: (1) The notion of a permanent or enduring reality as the ultimate ground or subject of the ever-changing complexes of empirical qualities. The incessant alterations in the qualitative complexes which are empirical things are conceived to be expressions or manifestations of a being which endures through all its changing expressions. (2) The notion of a self-subsistent or self-existent reality; of a reality which, as self-existent or self-caused, is permanent.

Empirical things are always dependent on their others. They have their transitory existences only as determined by the status and movement of all other finite beings. Now clearly, permanence and self-existence are correlative notions. Only that which is self-existent can endure permanently, and that which endures permanently must be self-existent. When a concept of substance is formed, the changing complex of empirical qualities are thought of as its attributes or properties. It is the *essence* of which they are the *appearances,* the *reality* of which they are the *manifestations;* the ultimate subject of all predicates.

The logic of Greek philosophy reveals clearly the motives, and logically possible points of view, in regard to substance. These are: substance is one or many in number, and one or more in kind. In early Greek philosophy substance is conceived to be one in kind, it is living matter (water, air, fire). Anaxagoras, who

is a qualitative as well as a quantitative pluralist, conceives it to be many in number and many in kind. The atomists, who are quantitative pluralists but qualitative monists, conceive that there are many instances of the one kind of substance. Plato's Ideas are: a plurality of substantial beings and a unifying or governing principle, the idea of the good. Thus Plato combines pluralism and singularism. The ideas are the true substances, but a dubious sort of being is given to matter, so that there is a dualistic strain in Plato and, more strongly, in Aristotle. Aristotle holds that the individual, who is the actual union of form and matter, the realized entelechy, is the *essential being* [*to ti én einai*] or substance. Thus, for Aristotle, there is a plurality of real substances. But this plurality has its goal in the seeking of the individual to become like the one perfect entelechy, the unmoved mover of all things. Aristotle, like Plato, gives to matter or potentiality, a quasi self-subsistence.

In modern philosophy Spinoza is both a qualitative monist (in other words his is a *double-aspect theory*) and a quantitative singularist; there is one self-existent all-inclusive being, one substance or God. For the dualists, Descartes and Locke, there are two kinds of substance, matter and mind; for the materialist, Hobbes, there are two kinds of substance, matter and motion; for the spiritualist, there is one kind of substance, spirit or mind. Berkeley and Leibniz are spiritualistic pluralists. For them reality consists of a plurality of psychical centers or monads; whatever unity there is in the universe is due to the interaction of the monads. Berkeley's pluralism ends in an idealistic theism. Leibniz said that the interaction was only apparent in the interrelations of the monads, which was the consequence of a harmony preëstablished by God. Later thinkers who start from personalistic pluralism, such as Lotze and James Ward, have discarded this conception of the windowless monad and admit direct interaction implying a common ground or medium. Lotze's pluralism ends in a singularism very like pantheism; Ward is a theist. Fichte and Hegel, like Leibniz, attempt to harmonize the motives of singularistic and pluralistic spiritualism. When the pluralist regards the interrelations of the many finite centers as implying an absolute ground, he ceases to be a simon-pure pluralist, and becomes in some degree a singularist. Indeed, the controversy between pluralism and singularism is really a question as to where

the emphasis is to be strongest, on the distinctness of the many beings, or on their unity. The singularist tends to slur the uniqueness and privacy of the finite self and the pluralist emphasizes it. William James, Howison, McTaggart, F. C. S. Schiller, H. C. Sturt and others in the volume *Personal Idealism;* in France, C. B. Renouvier, Henri Bergson and others; and in Germany, L. W. Stern are recent exponents of spiritualistic or personalistic pluralism; Josiah Royce, F. H. Bradley and B. Bosanquet, of spiritualistic singularism.[2] Modern materialists are atomistic or pluralistic in their emphasis, but the doctrine that the one substance is the continuous space-filling ether, of which all atoms are transformations and transitory modifications would be a materialistic singularism.

We are not concerned here with the question whether all reality is of one or more than one kind. That question we shall discuss later on.[3] Our present concern is with the logical value of the notion of substance for an interpretation of reality as a whole.

The classical criticisms of Locke and Hume on the notion of substance [4] are presented to-day from a new angle—the notion of substance is that of a meaningless reduplication of the properties or attributes which are supposed to inhere in it. If the permanent self-existing substance be not identical with its attributes, it is nothing conceivable and the relation between it and its attributes is inconceivable. Thus the substance idea is superfluous. If substance be simply a name for the sum of its attributes it is then neither permanent nor self-existing. Experience does not acquaint us with any entity that is absolutely permanent or self-existent. Experience is a realm of ceaseless flux, and the only permanencies or invariants that science finds in it are those of relations of functional interdependence among its data. Sub-

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[2] It should be added, however, that spiritualistic or idealistic singularists do not deny a relative reality to the human individual; but Bradley and Bosanquet are very dubious about according to the human person any permanent place in the cosmic scheme. This is not at all the case with Royce who has made the bravest attempt of them all to save the individuality and permanent place of the person in the absolute self. In his later works Royce laid increasing stress on the notion of the absolute as a community of persons. My own view is nearest to his.

[3] See Chaps. 21 and 27.

[4] See Locke, *Essay,* Book ii, Chaps. 23 and 24; Hume, *Treatise,* Book I, Part iv, Sec. 3–6.

stantiality or permanence, says Cassirer,[5] "signifies the relative self-dependence of determinate parts of a functional system; that, *in comparison with others,* prove independent moments." And a functional relation is a correlation between series of empirical data. The contents of experience are ever changing, but, in so far as we are able to find or put law or order in their sequence, and thus group the changing contents into series, we arrive at the only sort of permanence and subsistence that scientific thought can get and use.[6]

Soul-substance, conceived as the permanent and self-existing support of the empirical processes of consciousness, really adds nothing to our understanding of the actual self. It is only an embarrassing superfluity. The more closely we scan the actual history of selves, the clearer it becomes that the unity and continuity of the empirical self is that of the fluctuating, interrupted, and episodic memories, feelings, ideas, and purposes that correspond roughly with the observed bodily processes. If the soul be unchanging, it does not act for the changing consciousness. If the soul be simply the relations of functional dependence or order in the shifting data of consciousness, it is not a soul substance.

Material substance is equally useless as a substrate for empirical physical processes. How is it to be thought of? Does it possess only certain so-called primary qualities, mass, figure and mo-

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[5] Substanzbegriff und Funktionsbegriff, p. 119.

[6] Professor Spaulding, in *The New Rationalism* (pp. 29, 38 ff., 70 ff., 155 ff., etc.), attributes the aberrations of philosophers in hunting for mare's nests, or in dark places for things that are not there, chiefly to the dominance of the ancient Greek concept of substance as a "thinglike core" inside the empirical qualities. Owing to the baneful influence of the Greek philosophers, the thinglike concepts or corelike concepts of substance and cause have misled philosophers ever since into thinking of mind and body, spirit and matter, as thinglike substances and causes and speculating upon their relations. Thus have arisen the foolish and insoluble riddles of the opposition of spiritualism or idealism, materialism and dualism. Philosophy can end this endless and fruitless debate only by emancipating itself from these childlike notions and conceiving reality simply as a functional system of invariant logical relations between the varying data of experience. On which charter of freedom and progress for philosophy I make two observations: 1. Aristotle analyzes οὐσία or substance, which for him means *being,* and finds that it has four principal meanings, τό τί ἦν εἶναι, or *essential being,* τό καθόλου or the *universal,* τό γένος οὐσία or the *genus,* and τὸ ὑποκείμενον or the *substrate.* He identifies being or substance with the *individual* or *self-existent,* το ἕκάστον, κάθάύτῶ; this is the *essential being* or *subject* of attributes, not a thinglike core. It is the union of matter and form. 2. Some entity or entities must be self-existent or permanent; whether minds and bodies, or mind-bodies, or neutral entities, or "an unearthly ballet of bloodless" relations, this is not the place to consider.

tion. Then how can we account for the secondary qualities: sound, color, taste, odor, etc.? How do the primary qualities produce the secondary qualities? If the latter are subjective, inasmuch as they are dependent upon the reaction of the percipient organism to the impact of the primary qualities, then Berkeley's reply is in point.[7] Our knowledge of the primary qualities is equally dependent upon the reaction of the organism. The primary qualities are only relatively less changeable than the secondary. As empirical data, the primary and secondary qualities are on the same level. The primary qualities, supposed to be the attributes of material substance, are not the primary qualities experienced by us. They are either primary qualities reduced to microscopic and imperceptible proportions; or, as in the identification of matter with ether, everything experiential is stripped away, leaving only the bare notion of a continuous space filled with nothing conceivable or imaginable.[8]

Thus material substance is a meaningless abstraction that accounts for nothing. A single *neutral* substance, conceived as the underlying identity of mind and matter, in which are pooled, no one knows how, the attributes of matter-substance, and mind-substance, is an even more empty and superfluous notion.

If substance be the unknown support of known qualities, it is a useless notion. The business of knowledge is to establish systematic correlations of experiential data. Descriptive laws of qualitative and quantitative similarities and dissimilarities in the empirical sequences of series, and of correspondences between series of experiential data, constitute the whole business of science. In its only useful sense, substance is thus a misleading name for the never-completed sum of the laws of functional correlation of experiential data. For the only entities that are permanent are the universals and values—in short, the *relations* which we find or put into the ceaseless processes and which give them connection or meaning.

And yet, so irrepressible is the hunger of the mind for the concept of permanent and self-existing entities, that we find sci-

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[7] *Cf.* Berkeley, *Principles of Human Knowledge,* and *Three Dialogues between Hylas and Philonous.*

[8] The real primary qualities are only, to use Locke's term, "powers" to produce in the moment of perception the experienced primary and secondary qualities.

entists, after driving out substance, smuggle it in again under other names. The atoms, electrons, ether, etc., of the physicist; the elements of the chemist; the colloids, protoplasms and cells of the biologist; the sensations, affections, and reflex arcs of the psychologist are substances; and there is an inveterate tendency to hypostatize even the more general descriptive formulæ of causal sequence as "laws of nature." Even such tenuous notions as universals, relations, values, are hypostatized under other names. The Neo-realist, for example, who would banish substances and causes, and eviscerate their content into logical "terms" and "relations" which constitute propositions and propositional functions, says that these bloodless notions *subsist* although they do not exist. He does not tell us what they subsist on. If they subsist on themselves, they are simply our old friends the substances masquerading under other names. A self-subsistent entity is substantive.[9]

The truth is, as Kant said: *we cannot think the changing without the permanent.* There must be something which changes and if change is orderly, that is if it be *thinkable,* there must be a ground or grounds for the order of change. Even the perpetual flux and movement of perceptual experience must be the expression of the orderly interaction of real entities. Even if change were illusory, there must be some permanent ground for this universal illusion. Empirical reality is the way in which things *behave* around us and in us. It is the manifestation of a system of centers of activity or movement. The substantial grounds of experience must be permanent centers of activity in inter-relation. This is not the place to consider whether all real beings are of one kind. The concept of substance as an inert core or passive support of empirical qualities is certainly useless. I doubt if any important philosopher ever held it. The true meaning of substance is that of a system of particular centers of activity. All motion implies activity.

Since experience is a rich complex of everchanging but orderly sequences of qualities in multifarious relations of action and passion, the ground of experience must be the interaction of a plurality of interdependent centers, of *dynamic individua.* These are finite, since each receives from the others limits to its self-

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[9] *Cf. The New Realism* by Perry and others; Bertrand Russell's writings; Meinong's writings on *Gegenstandstheorie.*

activity and thus suffers—that is, is passive. There can be no determinate changes unless there are determinate beings having determinate transactions. The changing complexes of experience express their interaction. Whether all real centers of activity are reducible to one type (qualitative monism) is a problem that I shall consider later; whether all finite centers of activity are parts of one all-inclusive active principle (dynamic singularism); or whether the only unity is that of the system of interacting finite beings (dynamic pluralism, personalistic and otherwise); or whether the plurality of finite centers which constitute our world have their ground in one transcendent creative principle (theistic monism) will be considered later on.[10] Here it is sufficient to say that, since our pluralistic system of interacting individua consists of finite members, strictly speaking, these are not substances. Only the permanent self-subsistent ground or order of the whole system is the ultimately substantial or self-subsistent reality. The substantial is not something that mysteriously abides behind the whole complex of individua. The substantial reality is either, just the living order or system of the plurality of finite and interrelated centers of action and passion, or the transcendent ground of this order which, as known, is manifesting itself in the whole systematic order of finite centers.

[10] Part v.

CHAPER XVI

CHANGE AND CAUSALITY

In popular thought "cause" means something which produces something else. The common sense belief is that there is power or activity in the cause to bring forth the effect. The source of this belief is, without doubt, the feelings of personal effort or activity and resistance, which accompany changes produced by us, in our surroundings and by our surroundings in us.

The quest for causal explanation is the application to changing experience of the *principle of sufficient reason.* The causal principle is an *a priori* form or category of thought, simply in the sense that, inasmuch as we do not ourselves act without ground or reason, we suppose there must be a ground for every change in the world around us. It was reasonable for primitive man, who had not an accumulated stock of carefully analyzed observations in regard to the differences between the modes of behavior of physical nature and human nature, to suppose that whatever occurred was produced by some animated being or spirit acting from felt motives. The scientific notions of attraction and repulsion are ghostly relics of animatism. The fundamental distinction which has been made, as a result of technical control and scientific analysis, between *mechanical causation* and *final causation* is simply that between unmotivated and motivated causation. Teleological interpretation of nature is simply the last refinement of animism or animatism. We still use the same term to designate changes brought about by inanimate physical agencies and by persons.

Science has progressed, in exactness of procedure and the successful control, through prediction, of natural processes, by banishing final causes from the study of nature. Positive science does not ask *why* anything happens in the physical order, but *how* it happens. It is only in social life, in history which is the attempted reproduction of the social life of the past, and in ethical

inquiries; in other words, it is only where we have to do with the attitudes and desires of *persons* that we now ask *why* anything happens. The precisest possible general description of the orderly sequence of actual events is the aim of natural science. For it a cause is a uniform antecedent, without which the type of event in question does not as a matter of fact occur. While a cause is a uniform antecedent, that does not imply that causes and effects may not in part be contemporaneous and reciprocating.

The aim of scientific explanation is to reduce the sequences of events, as far as possible, to quantitative ratios. Science does not attempt to reproduce the course of the actual world in all its bewildering details. It makes conceptual abstractions from the teeming complexity of fact. Its end is simplification and precision of statement, for the sake of prevision and control. It is, therefore, most convenient for science to ignore troublesome questions as to the *natures* of causal agencies; and to confine itself to the description, in mathematical terms, of the functional relations of interdependence among the data of experience. In his book, *Erkentniss und Irrtum,* Ernst Mach has stated very clearly the view that the vulgar concepts of cause and effect are useless to express the functional interrelationships of elements in any complex phenomenon of change. The concept of *function* expresses much more completely and precisely the mutual dependence of elements. All dependences are mutual, and the general permanence in the changing relations or interdependences among empirical elements are to be expressed as functional relations or equations between the elements. For example, in an impersonal complex *ABCD, A* may vary inversely with *B, C,* or *D,* or directly with *B,* inversely with *C,* etc. The problem of science is to formulate differential equations for these correlative variations.

Thus, the chief value of causal explanation lies in the formulation of approximate regularities or orders of relation between qualitatively discontinuous phenomena.[1]

The following are the chief philosophical problems in regard to the notion of causation: (1) Is the notion of *power* or *agency* to be banished entirely from our conception of the world, or has it a legitimate place in philosophy? (2) What is the legitimate

[1] On the notion of cause as functional relation see, in addition to Mach and the references in the previous chapter, K. Pearson, *Grammar of Science,* third edition; also Avenarius, *Kritik der reinen Erfahrung.*

meaning of the postulate of the *uniformity* of *nature?* Must like causes always have like effects? Or are we to admit a so-called plurality of causes and effects, which would be to admit absolute contingency into the heart of things. (3) The problem of continuity and discreteness or novelty; in what sense must we admit the reality of novel events? (4) How are we to conceive the totality of causal interrelations? I shall now take up these problems in order.

(1) The notion of power or agency cannot be eliminated from the interpretation of experience without reducing it to a series of groundless and inert dissolving views. Since there is change, there is agency. There is a great gain, in simplifying his problems, for the physical scientist to banish all troublesome questions as to the nature of *force, agent, activity;* but clearly our richly diverse and mobile world is *dynamic.* Things are doing in it. Fire is an agent, since it burns my fingers or my house. Electricity is an agent, since it shocks my nerves or kills me and propels trolley cars. The quantities for which the differential equations obtain in mathematical physics are pure quantities without qualities. The world of experience is not a series of equations or mathematical functions. It is not an unearthly ballet of bloodless categories. The basic reality is experience, and the mathematical functions of the exact sciences have but a very shadowy resemblance to reality. Since the self is both a doer and a sufferer, it must suppose, when it suffers or perceives change, that something *acts.*

The tendency to shy off from questions as to the real agents in nature is a consequence of the lingering influence of the doctrine of mysterious things-in-themselves behind phenomena. Actually, *things are what they do.* Substances, if not all sentient, are at least all *agents.* Life, for instance, is not a mysterious entity. It is a generic term for multitudes of individua which nourish themselves, respond in peculiar ways to stimuli, are sentient and mobile, and reproduce their kind.

The descriptive formulæ of science state the uniformities or orderly relations in the behavior of natural entities. But these formulæ can never embrace or represent adequately the course of nature in its concrete complexity. Scientific laws are statistical averages for the modes of behavior of large numbers of individua. There are individual differences in the qualities even of atoms of

the same chemical substance, as instanced in isomerism and apparent exceptions to the periodic law. The differences between such minute individua may be explained, as in the electron theory, through differences in the subindividua. But individual differences are not gotten rid of; they are only reduced in scale. And the more complex the type of entity the greater and more significant the individual differences.

The qualitatively variegated wealth of empirical reality must have its grounds in a cosmos of diversified centers of activity. The determinate but ever varying complexes of primary, secondary, and tertiary qualities are the joint products of the interaction of percipient centers with other percipient and with nonpercipient centers. There can be no single type of causation, to which all others are reducible. Whenever similar phenomena, recognized through memory and record as constituting, together with present events, a group of objects that are constituted into a group because of the repetition of qualitative and quantitative similarities occur, we have a single type of causation. For no actual causal relation has any further empirical ground than the recognized repetition of similars. In many cases of causation the repetition is confined to the recognition of more or less of degree or intensity in qualitative similars. In the field of physical and chemical causation alone, approximate quantitative equivalences in the repetition of similars are determined. I say "approximate" equivalence; for, even in the case of the repetition of the physical measurements or chemical equations, we cannot assert absolute identity. Every case may have something unique about it. The most we can say is that, within certain limits, we have found for the repetition of certain qualitatively similar sequences a mathematical correlation. The more abstract, that is, the more remote from concrete experience and consequently the qualitatively poorer the elements and relations are, with which we deal in formulating causal relations, the more susceptible these relations are of mathematical statement. The relations of electrons and ether, conceptual objects endowed only with abstract spatial and dynamical properties, lend themselves readily to abstruse mathematical treatment. They have been made by the mind for just that purpose. Molecular elements in chemistry, being only one step removed from empirical combinations with perceptible properties, have to be endowed with valencies, weights, etc.

But chemical equations are quite exact, since the molecules have been made for that purpose. When we take into account, in physiological and psychophysical causation, the actually observable results of the interaction of stimulus and sentient organism, we are dealing with qualities more nearly in their concrete actuality, and we do not get beyond the approximate quantitative relations embodied in such principles as the laws of reflex action, the Weber-Fechner law, etc. In social and historical causation, where we have to do with the interaction of wholly concrete individuals and groups of individuals, we are at the farthest remove from the mathematical equations of abstract mechanics. The so-called exact laws of nature are exact in the degree in which they deal with abstract constructions in which the teeming qualitative complexity of the empirical order has been artificially simplified. These laws are, with reference to actual reality, simply more or less approximate statistical averages of repetitions of similarities in the behaviors of individua. In their formulation the qualitative differences of the individua are treated as negligible for the particular purpose in hand; just as in determining the expectation of life at various ages, the mortality tables used by insurance companies are sufficiently trustworthy practical guides in fixing policy rates, provided the statistics on which they are based are sufficiently wide in range for the multitudinous small variations in the conditions of health, disease, and death to cancel one another.[2]

The chief value of causal correlations in any field lies in the establishment of an expectation of repetition, of a similarity of sequence in events, based on the recognition of the repetition of similar sequences of events in the past. In other words, it consists in finding *identical orders of serial dependences* among distinct events. Since every event is distinct from every other, every event must be the expression of an interaction between at least two distinct entities. In linking together by the causal relation similar groups of events we are not explaining away the unique differences which give to events their distinctness. We are not accounting for the determinate diversities of the individua, the interrelations of which are the grounds of the events. A cause,

[2] *Cf.* Josiah Royce: *The World and the Individual,* Vol. II, Lectures iv and v; and his "The Mechanical, The Historical, and The Statistical," in *Science, N. S.,* Vol. 39, pp. 551 ff.

or better, a *condition,* of a change in one being, does not enter into that being and make it over into a copy of the being which causes the change. A cause is never more than an incitement or stimulus, by which one individual entity or group of entities occasions or stirs up reaction in another entity or group of entities.

Reality must consist of a plurality of interactive and interpatient centers. The orderly characters of the changes that take place in the history of the world means that these centers constitute a system of entities in reciprocal relationships. These relationships are the laws of the events of the world's history, but the laws do not fully express the complex individuality of the world whole, which is the organic, or rather superorganic system, of relations holding among the indefinite diversity of its individual elements. The pluralist regards the cosmical unity as consisting simply in the mutual relations of its individual members—interactive and interpatient. For him mutuality of stimulation and response is the ultimate fact of the world. The singularist or quantitative monist holds that all causal actions and reactions among the finite elements of reality are simply compensatory adjustments among the parts of the one absolute or all-inclusive being. For him all change consists of internal rearrangements in the one reality, and he finds the best analogies for the unity of the one reality in the relations of the aspects of mind to one another. The pluralist, on the other hand, finds the best analogies for a conception of the world whole in the relations of members of a society to one another. The theist is a pluralist with reference to the relationships between the finite members of the world, but he holds that these relationships must have their original and conserving ground in a transcendent principle of order. In later chapters I shall discuss these standpoints.[3] It will suffice here to point out the differences that result from the respective emphasis laid on different aspects of the problem. Pluralists, such as Berkeley, Leibniz, McTaggart, agree that the world is a cosmos or unitary order. Singularists, such as Spinoza and Bradley, hold that the finite elements are genuine constituents of the absolute, but in the absolute are absorbed to such a degree that they appear to lose their distinct individualities. Theists try to preserve the distinct individuality of finite entities

[3] Chaps. 35 to 38.

and, at the same time postulate a ground of the order of the world which, as existing in itself and for itself, transcends the world. Descartes, Berkeley, and Leibniz were theists; perhaps Hegel was. Representatives of philosophical theism to-day are James Ward, W. R. Sorley, A. Seth Pringle-Pattison, H. Rashdall, and G. H. Howison. Important shades of difference will be found among representatives of the various views, but I have not space to deal here with their differences.

(2) What is the meaning of the principle of the uniformity of nature? It is, I take it, the postulate that the same causes or conditions will uniformly give rise to the same effects. This postulate does not imply that precisely the same causes and the same effects ever recur. It is a purely hypothetical postulate of reason, namely—"if absolutely the same causes should recur, absolutely the same effects must follow." As we have seen, the "laws" of the recurrence of similar conditions, resulting in the recurrence of similar effects, are statistical approximations to the actual complexity and variation of the world of events. The so-called *plurality of causes* in practice means that what is for statistical purposes the same kind of event, for example death by natural causes, follows from a variety of events: accidents, old age, disease, overwork, etc.; but, from the standpoint of personal relations and perhaps physiologically, no two cases of death are ever absolutely the same so that the one could be substituted for the other indefinitely. The supreme tragedy of our social maladjustments is that the individual is so often treated merely as what he is not, namely, as a mere figure in statistics. Possibly there is no absolute repetition in the physical course of nature; perhaps no two electrons are absolutely alike in their situations and behaviors. Indeed, what are singled out as causal relations are simply the most obvious and practically important repetitions of similarities in events. Our causal descriptions are artificial simplifications of the indefinite variety of events. Every actual causal explanation is relative; not only to our meager knowledge of the actual wealth of detail, but as well to the particular purpose of our inquiry. For example, one man is shot by another. From a legal point of view, the cause was the shooter's intent to kill. From the psychological and moral point of view, it was the shooter's jealousy of the other's attentions to his wife. From the physiological point of view, it was the

impact of the bullet which produced hemorrhage. From the physicist's point of view, it was a problem in mechanics. From a cosmical point of view, the true cause was the whole state of the universe immediately antecedent to the shooting. But the latter explanation is no explanation, inasmuch as it would be useless for any specific purpose, legal, moral, or medical.

Empirical reality is creative. It brings forth novelties. This is most obviously true of the lives of individuals, the history of humanity, the evolutionary order of life. It is also true, if less noticeable, of the course of physical nature.* If the second law of thermodynamics be valid, then the physical universe is actually an irreversible order which is running down hill in the direction of absolute quiescence and death, unless some superphysical power can reverse the gears. From the standpoint of our human experience terrestrial history has been a creative process. There may be higher beings than man, but, never having been acquainted with any of these, I am unable to discuss their characteristics. It is impossible for us to be other than anthropomorphic in our standpoints. At most, we can only strive for the most purified and rational form of anthropomorphism. From this standpoint, the approximate goal of terrestrial evolution and human history is a process of creation of individuality and realization of personal values. The creation or achievement and conservation of values in human life has gone forward spasmodically and irregularily, not subject to any definite law that we can figure out. All philosophies of history that have attempted to formulate genetic theories of progress have failed; from St. Augustine to Herbert Spencer.

But certainly novelties are produced for good and ill; especially in the psychical and social orders the principle of *creative synthesis* or *creative resultants*, as Wundt calls it, holds good. Causes are factors combined to produce results which are not the arithmetical sum of the qualities of the causes but a new reality. Procreation is a familiar example of this. All creative mental work is an example. In brief, we may say that the origin and development of personalities is the most striking example of the creative process of the empirical world. This is taken

*If the chemical elements have arisen through intra-atomic changes, of which we get glimpses in radio-active transformations; the inorganic order is a historical, and perhaps a creative, order.

by some to imply contingency. If by contingency be meant only that we cannot predict the effect by adding together the causes, there is a contingency in the sense of the creation of new qualities. But, if by contingency be meant that there is absolute chance operating in the world, in other words that literally the same conditions might eventuate in quite different results, that some things happen without there being any sufficient ground why they rather than their opposites should have happened, I am unable to find any meaning in such a statement. If the assumption be true, our world is a bedlam, and nothing is certainly true, not even that the world is a bedlam. The only thing for which no ground can be conceived is the ultimate ground or grounds of reality. But this is not contingent; *it is the ultimate fact.* The question why being was made, if by being we mean the ultimate reality, is nonsense.

(3) The problem of continuity in causal processes has already been raised in our previous discussion. A causal series is obviously a series of discrete events. Each event in a chain, in which each is in turn effect and cause, is distinct and occupies a period of duration which is wholly or in part before or after another event. On the other hand, it seems irrational to draw any sharp line of temporal division between causes and effects. When the causal conditions of any event are complete, is not the event already there? Empty time can make no difference, but if change be absolutely continuous we seem to have no grounds for distinguishing events in a causal series; indeed, no grounds for recognizing a temporal succession at all. On the other hand, if change be not continuous, the causal process must consist of a series of jumps from one to another event, between which jumps there are no smooth transitions and therefore the intellectual demand for continuity is violated.

It is argued that, since the complete presence of the causal conditions of an event is identical with the effect, and therefore the time element must be eliminated when the problem of causal continuity is thoroughly thought out, the causal relation, to be thoroughly intelligible and consistent, must be the phenomenal expression of a timeless identity of logical ground and consequent. Therefore, the notion of a discrete causal series must be replaced by that of a timeless unitary ground. But this argument seeks to solve the problem of change by abolishing it, or rather by ignoring

it. Either change is an illusion or it is not. If change be an illusion, either the illusion must be accounted for and then the original problem is back on our hands in disguised shape or it is unaccountable; and then we have committed intellectual suicide at the very outset. If it be said that change is not illusory, but is the phenomenal expression of a timeless ground, we are simply cheated with words. The problem remains as to how a timeless ground would express itself in change.

The dialectical arguments against the reality of discrete change, drawn from the infinite divisibility of a continuously projected line, really assume that a temporal series of events is made up of a naturally endless number of timeless instants; in other words these arguments really assume the empirical reality of infinitesimals, which is self-contradictory. Empirical causal change is not adequately represented by an absolutely continuous line, thought to be produced indefinitely and therefore indefinitely divisible. To substitute for empirical change the idea of an indefinite succession of timeless instants is at once to assume and deny real succession.

In the empirical world there is incessant change. What we happen to single out as causes and effects, from the rich complex of empirical process, are the critically important events from the standpoint of our specific purposes. But the only sense in which causation and change are continuous is that there is no absolute cessation or beginning in the empirical order; and, therefore, this order consists of the continuous interaction or interdependence of the elements which make up the world. There are critical points in change; such as, for example, the boiling point of water, the freezing point, the moment of the fertilization of an ovum, the moment of birth, the moment of voluntary decisions, the moment of the declaration of war. Critical points are the results of the gradual accumulation of small changes, but their actual fruition constitute *creative syntheses* or *novelties.*[5] Causation does not proceed upon a dead level. Causal continuity involves discreteness, creativeness. The discrete occurrences which we call causes, or effects, according to our point of view, are the critical and creative

[5] The discussion of the places of minute variations or saltations (mutations) in the genesis of biological species is significant in this connection. But, *logically,* the problem is not changed by the degree of the variation. A novelty does not cease to be such by being small.

expressions of the qualitative complexity of interaction and result in a world which is constituted by the interplay of a multitude of dynamic individua.

(4) The problem of totality. How is causation to be conceived from the point of view of the cosmos—of things as a whole? It is argued that the categories of causation and change cannot be ultimate points of view, since, if we take them as such, we become involved in the so-called endless regress of terms and relations, and thus cannot reach the conception of totality. A temporal series or order of change is without first or last term, without beginning or end. In our scientific quest for causal explanation we may stop short with the cosmical star dust or electrons and the laws of physical motion, simply because we cannot coherently imagine conditions precedent to these and from which these emerge. Similarly we are unable to envisage concretely a remote future; logically a first cause or a last effect is an absurdity. A first cause would be a cause for whose existence and activity no ground could be given, an impassable limit to our understanding, a nontemporal cause; in other words a cause that is not a cause in the scientific sense; it would be a temporal event with which time began, but it is nonsense to talk of a beginning before which there was nothing. A beginning is a temporal event relative to antecedent temporal events. Equally nonsensical is it to talk of a last cause or final end-state. In other words, an event which means the end of events and of time. Therefore, it is argued, the totality of causal changes can only be thought of as a nontemporal ground. The bearing of the problem of change and evolution on the conception of ultimate reality cannot be adequately discussed until we have developed more fully our conception of ultimate reality and is therefore reserved for later chapters.[6] I may say here, however, that the only notion of a totality that seems to me tenable is that of a permanent ground of order which prevades and sustains the whole process of change. In other words, the unity of the world can be nothing more than the *systematical continuity of the whole dynamical system of interrelated elements.* The interactivities or reciprocal influences of the world's elements must be the direct expression of the world ground. The ground of the world whole may be a continuously active principle of order, of

[6] Book v, Chaps. 35–37.

which the actual course of the world in all its complex variety and novelty is the expression.

Thus far we have considered causation chiefly in the sense in which it is taken in natural science. In this sense it is essentially a retroactive standpoint, based on the recognized repetition of similar events. Previsions and predictions of the future depend for their success on the degree of repetition of similars—in short, upon the degree of identity between past and future. This, I take to be the essence of mechanical explanation. In so far as the career of life, including man's historical career, is the theater for the repetition of similars, it is a mechanical career. This we say without thereby implying that the forces and behaviors of human nature are identical with those of the physical universe. We may say that mental habits and routines and social habits (such as blind customs and traditions) are the mechanisms of history. Possibly the individual life and the social order are chiefly mechanical in their operations. Certainly they are largely so; but once in a while man, the individual, and men, the society, rebel against the mechanical and mechanizing processes; break through the treadmill of the past, to find or create something new which shall be better, which shall have unique meaning and worth. Desire, longing, hope, fear, discontent, rebellion, idealization, purposive striving, these human attitudes express various facets of the prospective forward living character of human life. In seeking to build better mansions for his soul and to build a better soul, man is striving to determine the present in the light of an imagined better future. In other words, he seeks to make mechanism subservient to the realization of new values or the more effective realization of accepted values. The fulfillment of ambition, of love, the quest for a better social order, for the salvation of his soul through religion or art, are ways in which mechanism is subordinated to purpose and value, means of escaping from the thralldom of his present by his past through creativity guided by imaginative foreshadowings of a better future. The future is a function of the living present; but, in so far as man successfully strives to break through the inherited mechanisms of his past, the vision of a better future becomes the most potent determining characteristic of the living present. Thus it is a mistake to say that in seeking for the country of the future man is sacrificing the real present to an unreal future. Of course one may do so by living a life of

mere dreaming, but the quest for that better country is really the re-creation of the present by the liberation of his life from the bondage of mechanical repetition. The limits of the validity of the mechanical viewpoint are to be found in the scope of life's creativeness.

In so far as life is creative, creative imagination and purposiveness or teleological activity control the course of change. In the order of nature and in the order of human life mechanism and teleology seem to be in incessant conflict. The issue is not the question of all mechanism versus all teleology, but of the subordination of mechanism to teleology. Nor does teleological control of change imply discontinuous and irrational contingency. The continuity of a well-ordered, intelligently directed human career, in other words, teleological continuity, is a more comprehensive and higher type of continuity than that of a mechanical repetition. The continuity of a living social institution, of a cultural movement; such as a nation, a religion, a historical totality of intellectual, moral, and æsthetic culture, is a still more comprehensive and higher type of continuity than that afforded by any physical mechanism. Is not then a teleological whole the highest type of causal and temporal continuity; and must we not, if we are to think the world a living whole, conceive the world ground as a continuing power of organization, a teleological world order in which mechanical repetition is subservient to the creativeness of life?

The question we have just raised involves a more systematic consideration of the concepts of individuality, value, and purpose.

APPENDIX

THE KNOWLEDGE OF ACTIVITY

Wherever there is change there is causality, and wherever there is causality there must be some sort of activity. The original source of the belief in activity resides in the self's immediate experience of its own activity. We feel desire, impulse, tension, effort. But the feeling of effort is not the same as the simple feeling of activity. We feel effort only when our feeling of inner movement, of the development of desire and purpose, is blocked, thwarted, or distracted by competing interests or external obstacles. Hence, to point to incoming peripheral sensations from the muscles and inward-pointing

sensations of headstrain as the sole sources for our feelings of activity is beside the mark. The feeling of activity is not exhausted by the elimination of these sensations. It may be objected that we are not to take an unanalyzed feeling of being alive and active as a primitive revelation. No; but the analysis into peripheral and central bodily processes leaves a remainder—the immediate feeling of consciously developing movement directed towards an end. This is particularly evident in rationally directed will-attitudes in which the higher thought processes are involved. The whole feeling of a self, as living and developing in its appetitive and purposive life, is identical with the feeling of self-activity. The feeling of activity is the sense of the inner development of the conscious and purposive life itself. We do not infer that we are active because we are alive. We are conscious of self-originating process and development with direction, following hard upon desire and interest, or, it may be, precisely contemporaneous with these. If *cogitans sum* is an immediate fact of introspective experience *agens sum* is a more catholic statement of the same inner immediacy. To experience one's life is to experience activity, since it is to experience self-directed change. To desire and aim, and to move toward the accomplishment of one's desire and aim, is to experience the original nature of activity.

If it be objected that, since all ideas are passive, we can have no idea of activity, I reply that one might as well argue that an idea of a fat ox must be a fat idea. An idea of a quality or relation does not have to be the identical quality or relation of which it is a true idea. If activity is the immediate awareness of the self as consciously alive one must always have at hand a nascent consciousness of what it means, even though one cannot draw a picture or diagram of it.

It may be said that all one can really find when one introspects are kinæsthetic sensations in muscles and sensations of headstrain, and therefore the supposedly spiritual effort of attentive and constructive thinking is the reflex of bodily processes. One can only speak for oneself in regard to the findings of introspection. I do not find sensations of tension and strain in the head, pointing inward and backward, to be all that there is when I retrospectively consider my own processes of intellection and conation. There are times, when all distracting stimuli being absent and all consciousness of bodily processes dampened, I have a feeling of unimpeded thought activity, of the flow and constructive rearrangement of images and concepts devoid of any sensory elements beyond the vague visual motor and auditory images of the words which symbolize the concepts involved. In other words when, at specially favorable times, thought moves towards its goal without any accompanying sensations of ob-

struction, conflict or tension, there is a feeling of unclouded intellectual activity.

The immediate sense of self-activity is the root of our notion of immanent activity in things. We project activity into other beings wherever we observe motion and change. When the self, in its activities, experiences obstruction, strain, effort, in carrying out its aims, its immanent activity becomes transeunt activity. Transeunt activity is the meeting of two or more immanent activities, the relation of active centers which obstruct or reinforce one another's activities.

This is not the place to discuss the question whether spiritual or psychical activity may not be the ghostly mirage of the activities of nerve-cells or atoms, that is, an illusory epiphenomenon. This raises the whole question of mechanism and teleology in metaphysics. I may remark, however, that until we are offered convincing evidence that the *prima facie* experience of personal activity is a deception we are entitled to accept it as a datum. Such evidence has not yet been forthcoming.[7]

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[7] On self-activity see especially James Ward, article "Psychology"; *Encyclopædia Britannica,* 11th ed., Vol. XXII; William James, *A Pluralistic Universe,* Appendix B, "The Experience of Activity"; *Ibid., Psychology,* Vol. I, Chap. 11, "Attention," especially pp. 447–454; and Vol. II, Chap. 26, "Will." For criticism of activity see Bradley, *Appearance and Reality, passim.*

CHAPTER XVII

INDIVIDUALITY, VALUE, AND PURPOSE

In Book IV we shall consider *in extenso* the nature of the human individual and the place of value and purpose in human individuality, in society, and in relation to the cosmic order. Here I shall give only general definitions of these categories and a summary account of their interrelationships.

An individual is a concrete existent whose determinate nature is a complex pervaded and controlled by an internal and self-possessing principle. In so far as a living organism is a unitary whole whose life activities are controlled by a single principle, it is an individual. A cell or even an atom may be considered as a sub-individual or lowest type of individuum. A human self or mind-body, being a unity that feels, perceives, thinks, and acts as a single self-possessing, self-maintaining, self-developing whole, is the highest type of individual in the empirical order. The unity of the self is primarily a unity of feeling and volition, secondarily a unity of cognition. I am not ready to admit with Royce that a *self* is always constituted by a single plan of action in the sense of a unity of conscious purpose. It is difficult to find and keep to a single integrated plan of conscious action in life. I know that I am a unity of feeling in the sense that all my feelings are mine. I know too that all my thoughts are my thoughts. I know, likewise, that I have never been quite able to subordinate all my activities into a single plan; that, with reference to action, I am much at the mercy of circumstances. It seems to me that to say that a self is constituted by a single plan of action would be to deny that many selves are selves.

However socialized, as members of the universe, my thoughts, interests, and aims may become, they are mine. Social ideals and principles, however impersonal, and universal interests and aims, have no existence or meaning, except as issuing from and referring back to the felt unity of the individual self. I cannot admit the

inference that Bradley, Bosanquet, and others of the school of objective idealists make that, as human individuals develop in rationality, sociality, and value, they transcend their individualities or personalities. Bosanquet conceives feeling as being just the difference that a universal content of thought and purpose makes to us as individuals. Like Hegel, he rather depreciates feeling, which is the psychical root of personality. He says that where we are strong we come together; in social work, art, religion, and science. True, but it is *we,* as *distinct and poignant individualities,* that come together; and our strength, when we do come together, is the combined strength of unique persons, of distinct and separate centers of feeling, thought, and action. The more human persons learn to think, to feel, to act, together for social and universal ends, the more individually distinctive and unique do they become. It is the unorganized, inchoate, undeveloped self that is easily submerged in the mob consciousness. It is the unthinking or defective mind that is submerged in the crowd mind. The mob is made up of selves with little selfhood. The crowd mind is made up of minds who either have little mentality or whose mentalities are in a state of suspended animation. The higher, the better organized and more rational the self, the more distinctive and strong the personality. The best organized, the most comprehensive, the richest, the most coherent and dynamic type of being that we can think is a society of free self-determining personalities. Therefore, the highest and most adequate criterion of value is to be found in the conception of a society of rational individuals or persons. It is the highest criterion of value, since one cannot conceive or imagine anything richer in content and meaning than a society of integrated selves; each possessing wealth and harmony of feeling and rational insight; each having the power of sustained action in rational coöperation with all the others, to further achievement of those ends which promote the spiritual enrichment and harmonious intercourse of its members one with another; a society of individuals enjoying and loving nature, and mutually free intercourse, feeling beauty and seeing meaning in their inward lives as well as in their outward relations, and successful in making themselves at home in their physical environments.

Personality or rational individuality is the most comprehensive criterion of value; since *truth* is simply the harmonious correspondence of the perceptive and rational powers of the self with

the order of reality; since *beauty* is the harmonious warmth of feeling which free contemplation of other lives yields to a self; since *goodness* is the harmonious integration of the affective and active tendencies of a self within itself, with other selves, and with the universe. Truth, beauty, and goodness are generic expressions for the chief aspects of the harmonious integration, social integration, and integration with the universe, on the part of human persons.

The ultimate ground of values or teleological order can be nothing other than the cosmic principle which makes possible the achievement and conservation of personal values. Every sort of order, whether physical, vital or human, is a system of individuals or quasi-individuals. A physical order is a system of dynamic centers of physical qualities or modes of behavior; a vital order is a system of organic individuals in dynamic relations to one another and to their physical conditions of existence; a human or social order is a system of dynamic relations between human selves. The orders that exist in nature or in human society increase in significance and value just in proportion as their constituent members increase in wealth of content and in harmony. Social and rational individuality or personality is the highest and most comprehensive type of value that we know. Therefore the supreme ground of values must be a superpersonal order.

But purposiveness seems to be a mark of imperfection, to imply always an unrealized end, an ideal which is not yet fact or reality. And the realization of the end involves the use of means or mechanisms, which are given independently of the end and which may not serve as ready instruments for the realization of the end. If means and end were wholly harmonious there would be no distinction between them; they would be timelessly identical. There would be then no striving and the idea of purpose would be an unmeaning superfluity. Thus, if the real universe be perfect, it cannot be a purposive or teleological whole. All values are eternally realized. On the other hand, if purposive striving have any real significance, the universe is not perfect. If the universe be not perfect, the values which purposive activity aims at may be perpetually doomed to defeat, and even to extinction. In short, when we attempt to conceive reality as a teleological or significant whole, we find ourselves confronted by a dilemma—either the whole is now as always perfect, and purposive activity is a vain

shadow in which men walk; or purposive activity really achieves new values and then the nature of the whole is imperfect and the issues of the purposive activity which it contains are uncertain. Thus we are brought to the problem of the place of significant history or evolution in ultimate reality—a problem to which we shall devote a later chapter. At this point I wish to show simply that the notion of teleology or purposiveness is subordinate to the notions of value and personality.[1]

I shall take as my guiding conception the notion that value is always a quality of spiritual selfhood or personality, regarded as essentially involving membership in a spiritual community. Then I think we may see that ceaseless striving for unrealized ends, endless effort in short, is not the highest mark of value in an individual or in a communal life. In the enjoyment of beauty in nature and in art we do not strive, in the contemplative possession of truth we do not strive, for ulterior ends. In the life of affection, of love and friendship, we do not strive; in short, in the highest, most self-sufficing and selfless activities and experiences there is no purposive effort to realize as yet unachieved values. Beauty is its own excuse for being. The contemplation of truth and the interpersonal life of affection are surely, too, their own excuses for being. With respect to these inherently worthful attitudes and experiences, with respect to the selfless contemplation of beauty, and of rational order, as with respect to unselfish human affection, we can say with Tennyson:

> Our wills are ours, Oh Lord;
> Our wills are ours to make them thine.

Since we are finite and imperfect beings living in a world of change, we never wholly escape from striving and willing, from setting up ends and devising means; but, in the possession of the highest values, of those values which are our most significant and most real living, we escape from the treadmill process of the striving will. In the fruition of value, and of personality in and through value, purposive conation ceases. As Dr. Bosanquet puts it: "If it (the principle of teleology when applied to cosmic theory) is to retain a meaning, it must abandon the whole analogy

[1] I beg to refer particularly to the very fine treatment of the idea of teleology in Bosanquet's: *The Principle of Individuality and Value*, Lecture iv.

of finite contrivance and selection and must fall back on the characteristics of value which is, apart from sequence in time and from elected purposes, attached to the nature of a totality which is Perfection." [2] "In extending the idea of teleology to the universe as a whole we are turning from the question whether this fact or that has the appearance of being contrived for a purpose, to the question whether the totality—contrivance or no contrivance, and without any suggestion of dividing it into part which is means and part which is the end—can be apprehended or conceived as satisfactory, that is, as a supreme value." [3] "And we see again that the true 'end' or value does not lie in this special relation to a terminus or a finite purpose, but in a character of perfection, which may in finite experience be relatively present throughout a process, or as a persistent result of it, or at the beginning of it, or at the middle." [4] "The great enemy of all sane idealism is the notion that the ideal belongs to the future. The ideal is what we can see in the light of the whole, and the way in which it shapes the future for us is only an incident—and never the most important incident—of our reading of past, present, future in their unity." [5] "Things are not teleological because they are purposed, but are purposed because they are teleological." [6] "We can freely suppose the world plan to be immanent in the whole, including finite mind and also mechanical nature." [7] "The foundations of 'teleology'—really individuality—in the universe are far too deeply laid to be explained by, but, still more, to be restricted to, the intervention of finite consciousness. Everything goes to show that such consciousness should not be regarded as the source of teleology, but as itself a manifestation, falling within wider manifestations, of the immanent individuality of the real. It is not teleological, for the reason that as a finite subject of desire and volition it is 'purposive.' It is what we call purposive because reality is individual and a whole, and manifests this character partly in the shortsighted and eclectic aims of finite intelligence, partly in appearances of a far greater range and scope. The large scale patterns of history and civilization are not to be found as

[2] *Ibid.*, p. 126.
[3] *Ibid.*, p. 127.
[4] *Ibid.*, p. 131.
[5] *Ibid.*, p. 136.
[6] *Ibid.*, p. 137
[7] *Ibid.*, p. 146.

purposes within any single finite consciousness; the definite continuity and correlation of particular intelligent activities, on which the teleological character of human life as a whole depends—the 'ways of Providence'—are a fact on the whole of the same order as the development of the solar system or the appearance of life upon the surface of the earth. It is impossible to attribute to finite consciousnesses, as agents, the identity at work within finite consciousness as a whole. This identity is exhibited in the development which springs from the linked action of separate and successive finite consciousnesses in view of the environment. Every step of this development, though in itself intelligent and teleological, is in relation to the whole unconscious; and the result is still a 'nature' though a second and higher nature." [8] "And with the mention of history and the time and place of a man's birth we come to Teleology above finite consciousness. In history, or in what is greater than history, the linked development of art or ideas and religion, the principle of a teleology beyond, though exhibited in finite consciousness, is clear and unambiguous. It is not finite consciousness that has planned the great phases of civilization, which are achieved by the linking of finite minds on the essential basis of the geological structure of the globe. Each separate mind reaches but a very little way, and relatively to the whole of a movement must count as unconscious. You may say there is intelligence in every step of the connection; but you cannot claim as a design of finite intelligence what never presented itself in that character to any single mind. The leader of a Greek colony to Ionia in the eighth or ninth century, B.C., was certainly paving the way for Christianity; but his relation to it, though in a higher way of working, was essentially that of a coral insect to a coral reef. Neither Christianity nor the coral reef were ever any design of the men or insect who constructed them; they lay altogether deeper in the roots of things; and this, as I hold, carries with it the conclusion which in principle must be accepted about evolution." [9] In brief, they builded better than they knew. "Teleology does not come out of the empty mind; it is the focusing of external things together until they reveal their internal life." [10]

The principle of value then is identical, in the human order

[8] *Ibid.*, pp. 152–153.
[9] *Ibid.*, pp. 154–155.
[10] *Ibid.*, p. 166.

and in the universe, with the principle of spirituality or personality. And the meaning of the latter is the organized spiritual harmony which is found and enjoyed in the greater experiences of life—in an impulse from a vernal wood, in the devotion of comrade to comrade, of lover to the beloved, of man to God, of the artist and the art lover to beauty, of the scholar and the thinker to truth, of men in general to justice and fellowship in the social order. Teleological interpretation of the universe means really an *axiological* interpretation, an interpretation in terms of value and personality. The notions of purposive striving, willing, of ends and means, are subordinate to the notions of value and personality.

From our standpoint reality at its highest level is a community of persons, an order of individuals. From this standpoint natural law or cosmical law has not the position of a legislative principle imposed upon the constituent individuals which make up the universal order. The elements of reality are not mere exemplifications of natural laws. The laws of physics, chemistry, biology, psychology, sociology, are formulations of the various subordinate orders, or regular modes of behavior, of individuals in relation. Natural law is an abstract or partial statement of the order that does obtain in the relations of individuals; legal and moral law of the relations which should but do not always obtain. In both types a law is an abstract partial statement of an order and of the relations of individuals as members of an order.

The ultimate problem of philosophy is that of the place of personality in the cosmical order; the problems of the value of personality and of the value of existence as a whole are but two aspects of this fundamental problem. One's conception of the value of existence must grow out of his conception of the place of personality in the cosmos; and on one's conception of what personality is and what nature is depends one's conception of the place of personality in the cosmos. We shall next consider the nature of nature, with special regard to the place therein of life and mind, making no attempt to formulate more than an outline philosophy of nature. This will furnish a background for a more detailed consideration of the nature of personality; then we shall be ready to face, as best we can, the last riddle of the sphinx—the place of personality in the cosmos.

BOOK III

EMPIRICAL EXISTENTS

CHAPTER XVIII

SPACE AND TIME

Hitherto we have been considering the more formal or logical features of reality. Identity and diversity, discreteness and continuity, individuality and universality, number and quantity, order, causality and substance, are the most fundamental logical features of the structure of reality as a whole. Any universe, and any partial system not a universe, must, in so far as intelligible, be a system of entities in relation and therefore be discrete and continuous, individual and universal. Any universe must be an order of entities in relation and therefore denumerable. For number is essentially an orderly determination in formal or abstract time, and expresses nothing but the ordered series of entities. Time is the order of succession or before and after. Space is the order of simultaneity or coexistence. The concept of number, we have seen, arises through the analysis and synthesis of qualitative differences in experience, and the application of number to things requires the recognition of qualitative likenesses and differences. Numerical order and magnitude are the most formal and abstract ways of discriminating and relating, in terms of discreteness and continuity, the qualitative wealth of empirical reality. Numbering is the formulation of an order system of relations for the qualitative complex of empirical reality. It is through time and space that identity and diversity, the individual and the universal, number and quantity and the other categories become concrete. Regularity of space relations is one determinate aspect of the regularity, or the relation of order, which is the final ground of number and mathematics. The regular order of temporal succession is an abstractive construction from experience symbolized by number series.

In passing from identity and diversity, continuity and discreteness, through number, to space and time, we are following the order of increasing concreteness or specification in our considera-

tion of the structural character of empirical reality, and our next step, after considering space and time, will be to consider things and persons. We are not here attempting to deduce concrete reality from the concepts of identity and diversity, for we have insisted all along that these formal concepts are built up by the analytic-synthetic activity of intelligence operative in the organization of experience.

Common sense thinks of space and time as substances or real existents, in which things are contained and events happen. The Newtonian doctrine of absolute space and absolute time, which seems to have generally prevailed among physicists up to the advent of Minkowski and Einstein, is but a mathematical extension of the common sense view. Empty space and empty time are taken to exist independently of things and events. Berkeley criticized severely Newton's doctrine of absolute space, time and motion.[1] For Berkeley, of course, space is nothing but the order of coexistence, and time the order of succession, in the ideas of finite spirits. Liebniz held that space is the order of coexistence among the activities of the monads, and time the order of succession in the activities of the monads. In his controversy with Samuel Clarke, the disciple of Newton, Leibniz argued that Newton's doctrine of absolute space and time would make God a finite being conditioned by space and time. I hold that Leibniz's theory is, in principle, correct and that it has been vindicated by the recent development of the physical theory of relativity.[2] Space and time are relative to the changes and experiences of finite beings. What may correspond to them in the supreme order of the universe, or in other words, what may be the ultimate ground of the space and time orders, I shall consider briefly at the end of this chapter and more fully in Chapters XXXV and XXXVII.

The chief questions, for philosophy, in regard to space and time are these: (1) In what sense are space and time real? (2) Are they relative or absolute? (3) Are they boundless and in-

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[1] See Berkeley, *Principles of Human Knowledge*, paragraphs 110–117, 123–132; and *Essay Towards a New Theory of Vision.*

[2] The best brief treatment of the relativity of space and time in its general philosophical and historical aspects that I am acquainted with is Dr. H. Wildon Carr's, *The General Principle of Relativity.* On the philosophical bearings of the Einstein theory I have found two good brochures in German—Moritz Geiger, *Die philosophische Bedeutung der Relativitätstheorie;* Ernst Cassirer, *Zur Einstein'schen Relativitätstheorie;* both of date 1921.

finitely divisible or have they bounds and ultimate elements (points and instants)? (4) How are they related? Are they correlative or independent dimensions? All these questions are interwoven. The answer to one implies answers to the others. If, for instance, as I shall argue, space and time are relative, they are real as *aspects* or attributes of existence; but they cannot be independent entities. If they are both relative and real, they may be, in some sense, finite and correlative.

Zeno, the Eleatic, developed the contradictions in regard to motion and change involved in admitting the reality of space, time, motion and multiplicity. Since his day philosophers and mathematicians have puzzled their heads over the questions of the boundlessness of space, the endlessness of time and the existence of the infinitesimal. Zeno's conclusion from his paradoxes was that motion, change and multiplicity are illusory. Kant, in his mathematical antimonies, gave a fresh statement of the contradictions involved in thinking space and time as absolute.[3] Kant admitted the universal empirical validity of physics and mathematics; so the only way out of the deadlock for him was to say that space and time are universal forms of finite experience, but not conditions of the existence of noumenal realities or things-in-themselves. For Kant the noumenal entities—God and the free and immortal soul —are, theoretically, mere hypotheses that give completeness to thought; they are regulative ideals. Practically they are postulates of moral faith. But Kant does not attempt to render an intelligible account of the relation of the spatial-temporal world of nature to the timeless and spaceless noumena. His idealistic successors struggled in vain with this problem. F. H. Bradley shows that, if space and time be taken to exist as such, they are riddled with contradictions; therefore they are mere appearances.[4] But Mr. Bradley does not explain what place these appearances have in the timeless and seamless whole of the absolute. M. Bergson resolves the contradictions by making space and time to be intellectual distortions of the true reality which is duration or change; but he does not seem to find any place for a supertemporal order.[5] Mr. Bertrand Russell finds the solution of Zeno's

[3] See *Critique of Pure Reason, Second Division*, Book ii, Chap. 2.
[4] See *Appearance and Reality*, Chaps. 4 and 18.
[5] See *Time and Free Will*, Chap. 2; and *Creative Evolution*, especially pp. 325–330.

paradoxes in the new mathematical theory of continuity. Space and time consist of discrete points and instants. These constitute compact infinite series; thus, in any finite portion of space and interval of time there is an infinite number of points and instants; between any two points or instants there is always another; thus, there is no next point to any point and no next instant to any instant, although there is nothing between any two points but points and nothing between any two instants but instants. A finite space is traversed in a finite time because there is a one-one correspondence between the infinite series of points and instants which make up, respectively, the finite stretches of space and time.[6] To me this solution is no solution, since I do not understand either how an actual stretch of space can be made up of an innumerable number of dimensionless points or how an actual interval of duration can be made up of an innumerable number of durationless instants.[7]

The first step towards a clear understanding of the problems of space and time is to distinguish between three ideas that are frequently confused: (1) the spatial and temporal attributes or qualities of our experience (of both sense data and data of introspection); (2) mathematical or conceptual space and time; (3) physical space and time. I proceed to discuss the distinctions and relations between these three sets of ideas. I ask the reader to bear in mind that while, for brevity of statement, I speak of "empirical," "conceptual" and "physical" space and time, these distinctions refer, not to different entities, but to different modes of thinking space and time. There can be only one ultimately *real* or *existent* space and time—the physical or cosmical space and time. I leave, for later consideration, the question of the relation between "subjective" or "mental" time and cosmical time (Chapter 37).

I. Empirical Space and Time

The spatial and temporal attributes of sensory and introspective data. All the data of experience have *duration* or *protensity.* They are *events,* which occur and recur and extend over one another. They have empirical simultaneity and successiveness.

[6] See Russell, *Principles of Mathematics,* Chap. 42, and *Our Knowledge of the External World,* Chap. 5.

[7] See further Appendix to Chap. 35: "The Infinite."

Some of these data have *extensity* or *voluminousness*. The data of sight, touch, kinæsthesis, taste and smell directly, and of sound indirectly by association, have voluminousness. I think that certain inward experiences of thought and feeling are devoid of extensive quality, but certainly our bodily feelings, pleasurable and painful, seem to have extensity associated with them. So far as concerns the external world, at least, our data are both extensive and protensive; the facts of nature are *space-time* facts. The things we perceive as extensive coexist and succeed one another; they endure and they change. The repetition of empirical data leads us to believe in the permanence or perduration of objects; a physical object is a thing that endures [8] or recurs in different event-settings.

Empirical extensions and durations are finite and heterogeneous or discrete. No two stretches of experienced duration or extensity, or perhaps one might better say no two stretches of extensity-duration, are precisely alike. It is obvious that our experiences of our durations as living constitute a succession of heterogeneous specious presents strung together in memory. It is not so obvious, but it is none the less true, that the extensity qualities of experience are heterogeneous. The extensity quality of vision is not the same as that of touch, taste, or sound. Even the tactual qualities yielded by the tip of the finger and the tip of the tongue in the exploration of a cavity in a tooth are discrepant. The space of a dream is discontinuous with the space of a waking experience. I need not multiply instances, from the psychology of space perception, of the heterogeneity of empirical space qualities. Similarly, the duration qualities of experience are notoriously heterogeneous. One lives much faster in one hour than in another. Suppose fifty people hear a lecture, of which the clock time was one hour. There may be fifty different experienced durations. One person may have thought the clock time of the lecture about ten minutes and another person may have thought it about ten hours.

II. Conceptual Space and Time

How do the concepts of one homogeneous and unchanging space-whole and of one continuous and evenly flowing time order arise from the multiplicity of heterogeneous perceptions by indi-

[8] See Dr. A. N. Whitehead's very striking analysis of nature as duration, in his *Principles of Natural Knowledge* and *The Concept of Nature*.

viduals? I think it is obvious, upon a little examination, that the mathematical concepts of space and time are the last steps in the construction, by analytical abstraction and synthesis, of the notion of a common world order which has its roots in the needs, postulates and conventions of the social life. The individual finds himself from the outset, in a social world—a world of interplay between himself and other selves. He is prone to take every other center of action and resistance to be a self. He must imagine and conceive a common space as the theater of interaction between selves. The other self and himself meet constantly in conflict and in coöperation. As his field of actual and possible social interplay is enlarged, just so his concept of the common space whole is widened. As his social contacts increase in variety, depth and orderliness, just so his concept of a common space grows in refinement and stability, grows as an instrument of practical and logical manipulation.

Similarly with time. The individual's consciousness of his own lived duration is enriched through social interplay. His own duration overlaps and is overlapped by the durations of other lives. The sequence of the generations, the rise, persistence and decay of custom and tradition, at first orally and later by written record, enlarge his consciousness of duration. The history of his physical environment is closely interwoven with the history of his family, tribe, city, state and nation. Thus man's time consciousness is enlarged, until finally the origin and evolution not only of the human race but of the whole life process is interwoven with the history of the universe. From the Alcheringa myths of the central Australian savage down to the latest form of the evolution theory the notion of the time process keeps step with the development of the concepts of social life and order. As a social individual man is under the practical necessity of marking off briefer and longer rhythms of durations. If he were a hermit animal he would need to take note only of the cruder physiological and seasonal rhythms. But as a social being he must have a time for everything—a time to eat and sleep, to work and play, to go to school, to marry, to conduct public affairs, to pray, etc.; yes, even to tinker at the social order itself.[9] In order that men may co-

[9] On the history of the time concept compare the article by James T. Shotwell: "The Discovery of Time" in the Journal of *Philosophy, Psychology and Scientific Methods*, Vol. xii, pp. 197 ff., 253 ff., 309 ff.

operate they must agree upon methods for measuring intervals of duration. All the methods and standards of time measurement, from the hour glass and the clepsydra to the apparent diurnal motion of the fixed stars, consist in closer approximations, by means of a nearer approach toward an invariant rhythmical movement, toward an invariant order of succession. Every improved measure of time is an asymptotical approach, by social convention, to the ideal limit of an absolute rhythmical movement.

Time is measured in terms of space and space in terms of time. Strictly speaking, all determinations of space and time must begin from the "now-here" of the individual. "Here" is "now," and "now" is "here"; thus the simplest fact of experience is a space-time fact—"an event particle," as Dr. Whitehead puts it. But, for all social purposes, we must assume that the empirical space of the individual is continuous, respectively, with the spaces of other coexisting individuals and his time coincident with their times and continuous with the durations of succeeding individuals and groups. Thus I believe that the space-time of my here-now is a component of the one space-time whole of contemporaneous "nature" and "society"; and that the duration of my here-now is a moment in the one continuous temporal order. The space order is conceived to be reversible and therefore absolutely continuous, whereas the time order is irreversible and therefore, thus far, discrete. This difference is due to the fact that there lingers in our most abstract notion of time a vestige of the experience of life as a succession of heterogenous specious presents, whereas pure space is abstract simultaneity. On the other hand empirical space, like empirical time, involves heterogeneity. The differences between two nows in an individual or between the contemporaneous nows of two individuals may be no less a spatial than a temporal difference. What I feel now may depend on where I am, just as truly as where I am depends on what I feel. The rawest facts, the hardest data of experience, are space-time facts.

Mathematical or pure space and time are conceived to be homogeneous, absolutely continuous, infinitely divisible, and, respectively, boundless and endless. There are no heterogeneous heres and theres, rights and lefts, in pure space; no discrete nows in the even flow of pure time. Pure space and time are simply the last stages in the setting up, by analytic abstraction and synthetic construction and for social purposes, of absolutely homogeneous space

and time. The empirical space and time orders are eviscerated of all sensuous and dynamic content and are conceived, respectively, as a three dimensional reversible order and a one directional irreversible order. The order of simultaneous relations becomes the space of pure geometry. The order of pure succession becomes the time of arithmetic. A conceived realm of pure positions and directions, of positions occupied by nothing and of directions in which nothing moves but pure movement, is of course logically continuous and boundless, to any extent one pleases.

An order of succession in which nothing succeeds anything else except pure moments is of course logically continuous and endless, according to the rules of the logical game. But such a space and time exist only in the mind of him who thinks them. They are as absolute as one pleases because there are no inconvenient facts to mar their absoluteness. An infinite continuous order of dimensionless points has nothing to do with actual space. An infinite continuous order of timeless instants has nothing to do with actual time. The development of logically consistent systems of geometry which set out from definitions and postulates other than those of Euclidian geometry affords capital illustration of the nonactual or nonempirical character of pure space; and the paradoxical developments of number theory, with its transfinites and new infinites, illustrates the nonactual character of pure time. In the realm of pure formal logic we have to do simply with highly conventionalized symbols, with nonexistent terms and relations belonging to purely speculative games. I may remark, in passing, that the traditional metaphysician who develops a camel out of his inner consciousness would be much more at home among speculative mathematicians than among philosophers of to-day. It is possible to continue the process of abstractive construction to the point of developing space theories from which the qualities of empirical space have vanished, and to construct theories of number from which quantity has vanished. Indeed these things are being done.

I do not, of course, mean that the conceptions of one limitless and continuous space whole and of one evenly flowing and limitless time are created *out of nothing* for the satisfaction of social needs. What I do mean is that the absolute homogeneity, continuity and limitlessness, of pure space and time are the results of a convenient abstraction from the heterogeneity and discontinuity of the actual

spatial and temporal orders. All that is local and particular is thought away and the abstract forms (the Kantian *intuitions*) of space and time are set up as real entities.

III. Physical Space and Time

I mean by physical space and time objectively real space and time, and I propose to show: (1) that they are both correlative and relative, (2) that they imply a trans-spatial and super-temporal order.

Whatever be the case with regard to mental durations, it is certainly true that physical durations are extensive as well as protensive. In nature time is the soul of which space is the body, as Dr. Alexander picturesquely puts it.[10] The events of nature endure and pass, but they are never disembodied events. By abstractive construction there are formed timeless spaces for time systems; and, as Dr. Whitehead says, "A point is really an absolute position in the timeless space of a given time system.[11] But dimensionless points and timeless instants are metaphysical non-entities. Whether the same is true of spaceless duration remains to be seen. I have already called attention to the fact that our estimates of space and time are relative to one another and I shall not labor their correlativity here. Both Dr. Whitehead and Dr. Alexander have, from different points of approach, abundantly established the correlativity of space and time. The physical theory of relativity involves the same conception, but I think it is unfortunate that Einstein and his disciples speak of time as the fourth dimension of space, thereby confusing the actual correlativity of space and time with the dubious notions of non-Euclidian hyperbolic space.[12] Space and time are correlated aspects of nature, but if one of these aspects be more fundamental than another it is time or duration. Nature is, as Dr. Whitehead puts it, *passage* or *creative advance*. On the other hand, nature is not passage so swift that mind cannot grasp or think it. The passage of mind back and forth through the successive and overlapping events of nature is so much swifter than the passage of nature that

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[10] See his *Space, Time and Deity, passim.*

[11] See his *The Concept of Nature*, especially Chaps. 3, 4 and 8.

[12] I am unable to attach any definite meaning to a nonuniform space. Space as a whole cannot bend; a curved space is a contour or spatial relation of something spatial, that is, material, not of space itself.

mind is able to identify or recognize, in the recurrences of events, *permanences. The permanences in the qualities and relations of natural events constitute the objectively real space order.* Space, as a human idea, is the imaginative and conceptual way of cognizing the order of coexistence in the qualities and relations of nature. Time, as a human idea, is the imaginative and conceptual way of cognizing the orderly succession in the passage of nature and its creative advance, and in the passage of human nature and its creative advance.

The paradoxes of Zeno, the Kantian antimonies, the Bradleyan doctrine that space and time are mere contradictory appearances and all theories of a similar character, have their roots in the assumption that, if space and time are real, they must be absolute entities. Such notions arise from hypostatizing the abstract constructions of pure mathematical space and time. In order to find a common basis for action and thought, man has assumed that his systems of reference for estimating motion, velocity, distance and magnitude are absolute and has set up as metaphysical entities the mere abstract frameworks of his movements and calculations.

I will not enter here into an extended account of the physical theory of relativity. The literature on this subject is abundant.[13] Moreover, I have no competence to discuss the more recondite physical and mathematical aspects of the subject. It seems clear, however, that the result of the famous Michelson-Morley experiment implies that we have no means of finding an absolute standard for the measurement of movement. All our estimates of movement are relative to our systems of reference. This has long been recognized to be true for every sort of movement except that of light, which has a constant velocity of 300,000 kilometers per second. If I were traveling east in a train going at the rate of sixty miles per hour and a train should pass in the opposite direction at the same rate it would for me be going twice as rapidly. If I were walking toward the back of the car at the rate of four miles per hour the west bound train would not be going quite as

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[13] See A. Einstein, *The Theory of Relativity;* A. Eddington, *Space, Time and Gravitation;* M. Schlick, *Space and Time in Contemporary Physics;* C. D. Broad, "Euclid, Newton and Einstein," in *Hibbert Journal,* Vol. xviii, 1919–1920, pp. 425–458; and the symposium by Eddington, Ross, Broad and Lindemann in *Mind,* Vol. xxix, pp. 415–444.

A simple introduction to the subject is E. E. Slosson's *Easy Lessons in Einstein.*

fast. If the train be moving along the equator, the portion of the earth over which I am traveling is going westward at the rate of 1000 miles an hour. For an observer outside the earth I would be traveling west at 940 miles per hour. The earth is traveling around the sun at the rate of 18.6 miles per second. The solar system is traveling through space in some direction at an unknown velocity and at this point our system of reference reaches a limit. We substitute one system of reference for another until we come to the end of our tether. I need not multiply examples of the relativity of our estimates of spatial movement. Inasmuch as we measure temporal change in terms of spatial movement the relativity of space measurements carries with it the relativity of time measurements. We have no means of measuring simultaneity except the empirical one of simultaneous light signals; but there can be no absolute simultaneity for observers transmitting and receiving signals if they are on different platforms moving relatively to one another, and therefore with different systems of reference. The apparently constant velocity of light is, according to Einstein, due to the deformation of the axes of coördination used by one observer as seen by another. "Thus to an observer in a system moving relatively and uniformly to us at half the speed of light our proportions are foreshortened to half what they appear to us, so that measuring the propagation of light our unit is double that of his, and his is correspondingly half that of ours. Each observer, therefore, finds the light propagated at the same velocity of 300,000 kilometers a second, but the kilometers used by the one appear to the observer in the rapidly moving system elongated to double their length, and those used by the observer in the rapidly moving system appear halved in their proportion to the observer in the slow moving system." [14]

If a passenger in a smoothly traveling train watches a stone dropped from the train it seems to him to describe a straight line. For an observer in a position on the bank fixed with reference to the train the path of the stone is a curve. If two observers at equal distances from a point on an electric railway see a flash at that point they see it at the same instant, but if two observers equidistant on the electric train see the flash it will not be at the same instant, since, during the propagation of the light, one observer

[14] Carr, The *Principle of Relativity*, pp. 134, 135.

will have moved away from it and another towards it. There is no absolute simultaneity. Two events which are simultaneous for observers on one system of reference are successive for observers on another system of reference.[15] And we have no absolute system of reference. From our system of reference on the earth the firmament appears to be moving and a falling apple appears to move with it towards rest on the earth. But for an observer at rest outside our system, and for whom the earth and its surrounding bodies are rotating, the movement would appear to be that of the earth towards the apple. We have learned to *think* of the earth as moving and the firmament as at rest. But we have no criterion of a system at absolute rest. Theoretically, it is just as correct to say that the station and the landscape move past the train as it is to say that the train moves past them, that the earth moves toward the apple as that the apple moves toward the earth. The relativity of space and time measurements to the systems of reference of the observer means that empirical space and time are really the orders in which observers perceive and estimate the relations of coexistences and successions in the data of their experience. If there were no observers in the universe the nonsentient things that were left might still coexist and succeed one another in certain orders, but we can form no conception of what these orders might be since every actual order of coexistence and succession is a perspective from our own system of reference.

On the other hand, it is an error to infer, from the relativity of our human estimates of velocity or space-time, that space and time do not involve anything invariant or absolute; or that they are merely "phenomenal" in the sense of "unreal." The new theory of relativity, if I understand its import, is a mathematical method of transforming sets of equations for one system of reference into sets for other systems of reference. This method implies the reality of an invariant order. I cannot find any meaning in the assertion that space and time are phenomena, unless I am told what they are phenomena *of*. To say that space is the appearance of the intercourse of coexisting real being is just to say that space is the

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[15] We can conceive an observer moving away from the earth with a speed in excess of the velocity of light. For him our time order would be reversed. See Chas. Nordmann, *La Mécanique D'Einstein* in *Revue des deux Mondes*, Vol. lxv, p. 15. Oct. 1921, pp. 925–946.

appearance of an extended world order. The real world has extensity. Similarly, our part of the universe, at least, is on the move; it has a history; every member of it has a history; therefore, time is real.

To say that space and time are correlative is simply to say that the actual world system is not something which exists without change. There is no existent that does not traffic with other existents in time. If there be a God who is more than an otiose abstraction, who really does deeds, He too must traffic in time.

Is objective physical space a thing, a quality, or a relation? It cannot be a thing or substance since, if it were, other things could not occupy it, since a thing is a center of inertia. The physical principle that two things cannot occupy the same space simultaneously means that whatever occupies space has inertia or mass, in other words consists of centers of force. But to identify space with mass or force would be to deprive ourselves of any means of relating masses. In other words, if we identify space with the things which occupy it, we have no means left of relating the things with respect to position, motion, mass. Empirical things are complexes of sense qualities; but abstract space is neither a complex of sense qualities nor a simple sense quality. It is true that we speak, in psychological analysis, of visual and kinæsthetic spaces, and of their fusion in the genesis of space perception, but these are abstractions which presuppose a common *notion* of spatiality or extensity. Obviously there is not a single homogeneous spatial *quale* possessed in common by all our extensive sensations. If space were a complex of sense qualities, we should be able to show how it is generated from simple sense qualities not possessing extensity attributes. As I have said above, we must distinguish between extensity and geometrical space. Extensity is an attribute of sense percepts, which is just as irreducible as color, sound, taste or smell, and is more comprehensive, since the quality of extensity is found with all the other attributes. A sense percept is, in Berkeley's words, a congeries of sense qualities; and one of these qualities, namely extensity, is always present. The compresence of extensity with other qualities is, together with its relatively greater susceptibility to precision of treatment, the reason why science is prone to attempt to account for all other sense qualities in terms of extensity factors; but, if extensity is always present with other sense qualities, it is equally true that some other

sense qualities are always present with extensity; so the attempt to explain all other qualities as merely variations in extensity is foredoomed to failure. All sense qualities are equally real. If one were blind one could not perceive color, but if one were completely paralyzed one could not perceive extensity since kinæsthetic experience is fundamental in the perception of space. Geometrical space results from building up, out of the concrete extensities of sense percepts, a system of abstract relations. Geometrical space exists only as a mental abstraction, but concrete extensities exist objectively; and persist, that is, have duration. Space then must be a *complex of relations.* It is the tridimensional and reversible order of relations between coexisting things. It is the way in which the system of simultaneously existing entities appear to the mind. Positions, directions and distances are the persistent relations between the plurality of existing things. Such relations as *above* and *below, right* and *left, east* and *west, before* and *behind, distance* and *magnitude,* imply the existence of the objects thus related in the specious present or "now"; and the continuance of such relations presupposes the temporal continuity of the things related. Space relations imply the permanence of objects in time relations. On the other hand, time relations involve space relations, since the notion of a "now" or specious present implies a coexisting plurality of entities. Space, then, is the manner or form in which the reversible relationships or order of a system of simultaneously existing force centers appears to the finite self. Empirical or psychological space is a relational complex built up by the correlation of visual and tactual extension. It is in the sense that the attribute of extensity belongs to these perceptual experiences and that the mind can abstract and correlate the extensity factors that space is native to the mind. Mathematical space is of empirical origin, but the data from which it is built up belongs to the sense percepts, and the modes of operation by which it is built up belong to the mind. Similarly with time.

There is nothing in the origin and use of our space ideas to justify the assumption of a self-existing entity called space. We do not need it for any practical or scientific purpose and it is certainly a stumbling block in the way of metaphysical synthesis.

I do not mean, by saying that space and time are relative, that we can deduce them from nonspatial and nontemporal relations. As Dr. Alexander well says, "Relations in Space and Time are

themselves Spaces and Times." [16] I would prefer to say that they are spatial and temporal relations.

Matter is not *in* space, as though these were two distinct entities. Whatever is material is spatial and *vice versa*. There can be no empty space. Matter *is* space, but it is never mere space, since the concrete extensities which are material endure, move and change. Thus matter is spatial-temporal. If there are immaterial entities which are not in space (as Lotze contends in regard to *thought*) then they have protensive but not extensive qualities-in-relation.

Real space then is the order of coexistence or empirical simultaneity among bodies or event-particles and systems of event-particles. Whenever there are bodies there are space relations. Physical space and time are no more and no less real than bodies, which are systems of moving particles or event-particles.

Dr. Alexander argues that if time were nothing more than bare time it would consist of perishing instants. The mere temporality of *time* leaves no place for its continuity. Space saves time from being a mere now. In order that time should linger space must recur, a point must be repeated in more than one instant.[17]

Conversely, in order that space may have distinction of parts, may be more than a mere blank, there must be time. Space is generated by time. It is the trail of time, the "body" of which time is the "soul." By itself each consists of elements or parts which are indistinguishable so long as the elements of the other are excluded.[18] I understand this to be his way of saying that, whereas we can construct timeless spaces for various time systems, and can have as many time systems as there are configurations of movement and as many space and time measurements as there are systems of reference, the latter are all finite sections of the one whole of space-time, the one dynamic or moving configuration of reality. I would say that all finite time systems and space orders are perspectives of the one cosmic order, which is spatio-dynamic, or, if you like, is body-soul. The enduring character of the cosmic order is time and eternity.

In the one cosmical order there is no timeless space, no pure instantaneity, and no spaceless time or ghostly duration.

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[16] *Space, Time and Deity*, pp. 165, 166.
[17] *Ibid.*, pp. 45–49.
[18] *Ibid.*, pp. 60, 61, etc.

Where I quarrel with Dr. Alexander is with respect to his notion that space-time is an adequate description of the whole. It seems to me that to speak of the whole order of the universe as space-time is, either to empty reality of everything but its thinnest, most vacuous and formal aspects, or else it is to import into the concept of space-time all the empirical and transempirical bits of sensed qualities, life, mind and the works of mind. If Dr. Alexander means to load his space-time whole with all these qualities, then it is rich enough to stand for reality as a whole but it is a very unusual use of terms.

One can conceive that truth and other values, such as affectional and some æsthetic values, for example those of music, are not spatially conditioned. But I, for one, find it impossible to conceive a purely nonspatial existence. I can conceive, although very vaguely, a mind which is not externally bounded and limited by space, which grasps as a totality what are for us finite minds the indefiniteness or boundlessness of space relations in one intuitive insight; but such a mind would be *trans-spatial,* not nonspatial. Thus an over-self might transcend our spatial order, by grasping as one individual totality the existence of the whole in which we are limited elements. The increasing power of the human mind to master and pervade space relations does give us some positive hint of the possible character of such a space-penetrating perfect self.

Time is not a thing, nor a single sensory quality. It is a relational order of all our experiences. Time is the way or form in which the continuous *succession* of events or durations appears to the finite self. It is the irreversible series or order of events. Time is not a single sensory quality, since we cannot separate it from or range it alongside of or fuse it with other sensory qualities. That sensory and affectional qualities of experience change *in* time, means that they are in a definite order. To say that events happen in time is simply to say that they occur in an irreversible serial order. Temporal order cannot be generated from any combination of nontemporal entities. The notion of temporal order is derived from the self's recognition of the succession of its own discrete experiences or interpenetrating durations. "Always to perceive the same thing and not to perceive are the same thing," said Hobbes. Always to perceive the same thing, if it were possible, would certainly mean not to have any

sense of temporal succession. On the other hand, in order to recognize the discrete succession of events as a succession, the self must be conscious of its own continuity through change. The notion of the irreversible order of temporal events, then, is a direct derivative of the self's awareness of its own living continuity through change. The recognition of an objective time order is due to the self's recognition that it is a self only as a member of human society and of the universe.

Since a self has his own private experiences of succession and duration, his own psychical tempo which he projects backwards and forwards from the specious present or "now," his "now" contains, in its memories of the past and its expectations of the future, the experiential basis for all individual estimates of time and duration. But, just as the individual would never be able to distinguish and apprehend his own position in space without reference to the simultaneous positions of other beings, so he would never be able to apprehend his own present, past, and future without reference to the presents, pasts, and futures of other beings. In the present moment the individual can transcend the present moment. In so far as he identifies himself in thought with a telluric or cosmic social order, he transcends the temporal limitations of his own life, entertains the notion of an all-embracing temporal order; but he does not thus become timeless. He can think truths and other values that are free from temporal limitations, but he cannot conceive a real existence that has no positive relation to the temporal order. A cosmic self might not be limited by time. Time could be in him, not he in time. He might hold the endless temporal order together in one continuous insight, as we hold fragments of our duration together in memory. Thus time to him would not be endless in the sense of stretching indefinitely and unknowably behind and before him. Since he would be the unceasingly active and unchanging ground of the world order, the cosmic temporal order would be the form of his ceaseless energizing. The past of the whole universe would exist for him and in him as a function of his immediately present self-activity. The future of the whole universe would exist for him and in him, inasmuch as he would be the ground of the whole system of real possibilities open to the finite members of his universe.[19]

[19] See further Chap. 37: "Perfection and Evolution."

Dr. Whitehead criticizes the conception of a material which is *in* space and *in* time, on the ground that if space and time are entities independent of material then space-time relations cannot be attributes of matter. In short, if matter and space-time are independent of one another, then the physical order cannot be described in terms of the spatial and temporal relations of matter. The criticism is valid against the notion that matter and space-time are independent entities. But the minimum meaning of matter is just that it occupies space and changes its contours or form qualities and its other qualities in space. Physical space is just the order of the simultaneous contours of matter. Conceive the systematic relations of material particles as instantaneous and you have timeless space. Physical time is just the order of *change* in the contours and the qualities of matter. Thus matter and physical space and time are not independent entities. Matter is spatial because space is material and time is physical because matter changes. Matter is but a name for the permanent qualities and relations of dynamic and coexisting beings and time is but a name for the duration and succession of their activities.

The problems of the infinite divisibility and extensibility of space and time result from taking the formal orders of coexistence and succession as objectively continuous entities. If what really exists now, or at any other moment, be a definite assemblage of individua, the complex spatial relations between these would be resoluble, if one had sufficient sweep and penetrative power of analysis, into simple or immediate relations; and since there must be a finite number of individua, there must be a finite number of relations. A cosmic self would not need to count these relations; for, by hypothesis, he would be the absolute ground of the determinate system or order of the relationships between the determinately existing number of individual beings. Space is finite, since it is but a system of relations between the actual number of existing finite beings. A human being cannot help imagining a finite cosmos as bounded by empty space, since he cannot depict the whole system of coexisting finite beings except as bounded. He cannot do otherwise since he cannot intuitively grasp at one blow the whole system; he is a finite member and therefore can have only an incomplete although progressing grasp of his relations to the other finite members of the world system. For a cosmic experient, on the other hand, the whole system in all its

details and relations might be continuously present in one space-transcending insight. Similarly, the succession of events must be a determinate order. The immediate ground of this determinate order of events must be the interactions and interpassions of the individual members of the world order. The ultimate ground must be the world order itself. The infinitude or endlessness of this world order would be simply the eternal creating and conserving self-activity of the world ground. The finite individual is conditioned by the cosmic temporal order and the cosmic spatial order, which are to him boundless and endless respectively, since he is a finite member of the cosmic order. Thus the eternal world ground would not be conditioned by the temporal order. He would transcend time, in the sense that the endless succession of durations in the finite members of the world order would continuously depend on his sustaining activity.[20]

What are the relations of the indefinite multitude of individual space perceptions and time perceptions to the cosmical space and time orders? The former must be series of *perspectives* or *points of view,* taken throughout the histories of percipients, of the one objective or cosmical order of coexistent relationships among finite existents and of the one cosmical order of succession in the histories of finite existents. My perception of space relations, here and now, must be a fragmentary, and, therefore, but partially true, perspective of the real existence now of things in their totality. I enlarge and improve this perspective, by taking account of more comprehensive social and physical relationships, but my spatial perspectives must always remain fragmentary. Individually and socially these perspectives are good so far as they go, but they must always remain imperfect. As social beings, the most that we can do is to attain more comprehensive and harmonious series of agreeing but fragmentary perspectives of the total system of reality. Similarly, we can enlarge and render more consistent our temporal perspectives. Thus, our individual perspectives of time and duration, enlarged and harmonized through social co-operation and communion, become relatively less inadequate common perspectives of the one cosmic temporal order; but as to how far the widest sweep of our historical and evolutionary perspectives are valid views of the cosmical temporal order, we may never

[20] See further, Chap. 37

know. The individual's space and time perspectives, as corrected and enlarged through social communion, attain higher degrees of truth. But in this matter, as in all matters that deal with ultimate problems, we must remain content with approximations by slow degrees to an ultimate truth which in its concreteness and totality remains always beyond our grasp.

Conceptual or mathematical space and time are, as we have seen, the results of social thinking, of the coöperative efforts of the human mind to approximate more closely to the objective order. The histories of these concepts shows that clearly. The greater the degree of precision that we can introduce into our physical standards of time measurement, the closer will be the approximation of our conception to the presupposed objective cosmical order; but the degree of such approximation is always limited by the condition that we must depend upon the data of our sense organs and the relativity of our systems of reference for the materials of our judgment. By the use of mathematical methods we may approximate more closely to the objective order. From empirical space and time perceptions we form, by social coöperation and by intellectual construction, more nearly invariant standards of measurement. As Poincaré says: "We seek the invariant laws which are the relations between the crude facts of nature." The possibility of translating things from one space order into another implies the existence of an invariant order; similarly with time. Moreover since, as we have seen, the recognition of a spatial order presupposes the recognition of a temporal order, the presupposition of our quests for more accurate spatial and temporal determinations is an absolute invariant order, an eternal order as the basis of the objective or cosmical temporal order. The conception of an objective and uniform order of temporal sequence is the consequence of comparing a number of ordered series of changes with one another and of establishing a one-one correspondence between them. For example, I find a one-one correspondence between the acts of my daily routine and clock time, and between clock time and sidereal time. As Natorp remarks:[21] "The possibility of objective temporal determination depends upon uniformity and continuity in change and the objective temporal sequence of events is a logical construc-

[21] *Die logischen Grundlagen der exakten Wissenschaften*, p. 345.

tion of events in one temporal order." But the one temporal order is the eternal order, which our empirical time determinations presuppose—an absolute and eternal order.[22]

Every attempt to solve the space-time problem by separating empirical space-time, dubbed "subjective," from physical space-time, dubbed "objective" and conceived as an abstract order or set of mathematical laws, breaks down. Every empirical space-time is a fragment of the ultimate space-time order seen in perspective from the view-point of a finite percipient. All the empirical space-time facts are real; they are fragmentary and momentary views of the one ultimate order—the Order of the Universe—which is not space and time added together but one systematic totality, one dynamic and continuous system. Extensity and Duration are aspects of the One Order which are distinguishable in thought but inseparable in fact and reality. The universe is an order manifested as Space-time, but it is very much more; it is a living super-organism or community, of which Extensity and Duration are but poor and formal aspects.

APPENDIX

DR. ALEXANDER'S THEORY OF SPACE-TIME

I cannot undertake here a full critical consideration of Dr. Samuel Alexander's fascinating theory of space-time as the absolute or ultimate of ultimates in his massive and stimulating work: *Space Time and Deity.* I must be content to set my own view in relation to his by a few critical remarks. Dr. Alexander conceives space-time, or the endless motion of extended substances or materiality, as the all-inclusive reality. For him, time is the "soul" or moving principle of space and space is the "body" of time. Thus the fundamental reality consists of ever-changing spatial contours. Within this all-inclusive and ever-moving extensive reality there emerge, by *complication,* a series of ascending orders of empirical qualities: first, the secondary qualities of our empirical order, such as color, sound, temperature, taste and odor; second, by further complication, the vital

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[22] In addition to the references already given, the following are especially important: Royce's discussion in *The World and Individual,* Vol. II: the writings of Charles Renouvier; a valuable discussion will be found in A. O. Lovejoy's articles: "The Problem of Time in Recent French Philosophy," *Philosophical Review* 1917, Vol. xxi; and "The Place of the Time Problem in Contemporary Philosophy," *Journal of Philosophy, Psychology, and Scientific Methods,* 1910, Vol. vii.

qualities or behavior of living matter; third, by a further complication of vital behavior, the qualities of sentience or feeling and conation. (Thought or cognition for Dr. Alexander is delayed or suspended conation.) Values, in his system, are not empirical qualities but products of feeling and conation in interaction with their physical medium. It is a fair presumption, says Alexander, that, just as secondary qualities have emerged from primary, vital from secondary, and sentient or mental from vital, by complication, so higher empirical qualities than mind are emerging in the endless movement of space-time. The divinity of the universe or God in the making, the God that always is to be but never is, is the emergence of empirical qualities higher than mind. We cannot know what these are, since we are only finite minds, but we may infer that finite mind is the "body" of which God, or the complex of higher qualities in becoming, is the "soul," just as finite mind is the soul which emerges from organic bodies and as life is the soul which emerges from a specific complication of secondary physical qualities. I shall not here discuss the question whether it is not a radical confusion of counsel to call Deity the supermental qualities which may be emerging from a complication of finite minds but never fully emerge; in other words, whether a God that never is but is always becoming or to be is properly called God or Deity.

Doctor Alexander seems to me to have shown that in reality the space-time aspects of the empirical world are inseparable. With respect to the physical world his saying that time is the soul of which space is the body is a figurative expression of a profound truth. I do not think that he succeeds in his attempt to demonstrate that space without time would have only one dimension; although I do hold that the recognition of two or more dimensions involves a temporal element and thus extensity and time are tied up together. Where I fail completely to follow Dr. Alexander is in his attempted deduction of the various orders of empirical qualities from pure space-time. I cannot understand how, by any conjuring trick of the mind, secondary qualities can be shown to "emerge" from mere space-time or vital and sentient qualities from secondary physical qualities. Dr. Alexander denies that his system is a materialism since, in the cardinal instances of life and mind, these qualities are not *caused* by their primary and secondary substrata but *emerge* by "complication." Life, in his terminology, is the "enjoyment," in a new simplification, of a complex of secondary qualities; mind is the enjoyment of that specific complex of vital qualities which constitutes innervation, the basis of consciousness. This attempt to distinguish between emergence and causation and to argue that, since life is the enjoy-

ment by color, sound, et cetera, of itself, therefore life is not the caused product of material motions; and, because mind is the enjoyment by itself of an innervation complex, therefore mind is not the caused product of innervation, seems to me a verbal quibble. If life emerges from a physical order in which there was no life, and mind from that particular complication of the physical order which is vitality, then we have a new materialism. In view of the historical meaning of terms why cheat ourselves with words? In spite of his protestations, Dr. Alexander's imposing and ingenious attempt to deduce all the empirical qualities in existence from pure space-time is materialism. Now, if materialism be the most cogent philosophy, in other words the philosophy which on empirical and rational grounds carries the heaviest weight of evidence to our minds, we ought to accept it. To say why it does not carry this overweight to me would be to attempt to condense the whole course of the present work. In the interests of brevity I must be content to say here that space-time are two correlative aspects of reality. But reality is not now and never was pure space-time. Higher orders of empirical existence and value are not deducible from pure space-time. Space-time is too abstract, too thin, too mechanical in the geometrical sense, to constitute the stuff of reality, a primal motion-stuff in which emerge, by its thickening-up, all the higher orders of existence. Dr. Alexander's space-time, regarded as the primal motion-stuff, seems to me strangely like the fire of old Heraclitus and the fine fiery essence of the Stoics. Alexander's space-time is a materialistic absolute stated in terms of modern kinematics. If mind and life emerge by a process of blind complication from a physical or kinematical world in which mind and life were not already operative, then mind and life are by-products of matter in motion and the latter has the strange property of condensing or concentrating itself into forms of existence which do not obey or even respect their parent, since they do not obviously behave according to the principles of kinematics and physical dynamics. The issue seems to me clear-cut between Dr. Alexander's theory and any theory which would be adequate to all the facts. Life and mind are efficient factors in the universe, and factors whose modes of behavior are not charted in kinematics. If it is asserted that life and mind have been produced from space-time, what we have served up, in the interests of a specious continuity of doctrine garbed in quasi-mathematical phrase, is the assertion that an abstract universe of moving extensity has given birth to a hierarchical series of concrete realities whose significant qualities and increasing values are entirely other than moving extensities.

CHAPTER XIX

PHYSICAL REALITY

I shall use the term "primary physical reality" to designate all data of sense. These data, of course, actually exist *for selves* only in the moment of experience. In the absence of any percipient these data exist in the form of possible objects of perception.

I assume that our minds are in our bodies.[1] The human body I assume to be the medium of communication between the mind and the remainder of physical reality. In the broadest sense of the term I mean by "physical reality" or "nature" all that is either experienced, experienceable, or conceived as logically implicated in experience, by other minds as well as by one's own mind. Thus, *physical reality is a social reality.* Its very recognition as a public reality implies the recognition of the existence of other selves. And in turn the recognition of other selves implies the existence of a public realm of sense perceivables or "sensibilia," inasmuch as one can know another self only through physical intercommunication. If there were only one self in the universe, for him there would be no distinction between mental or subjective and physical or objective reality.[2] Mental or subjective reality, by contrast, includes everything that is not an actual or possible public sensory datum; namely all personal feelings, private attitudes and acts. Of course, we infer from their physical expressions the feelings, attitudes, and acts of other persons; but we do not contemplate the latter in themselves. You and I see the same chair from slightly

[1] On the relation of mind and body, see Book iv, Chap. 27.

[2] If I were the only self in my physical universe, there being no distinction between mine and any other universe, I could only conclude, when my expectations were disappointed and my purposes had gone awry, that reality had changed its character, and not that I had misconceived that character. The world of illusions in which the insane person lives is due to the derangement of the social relations of the insane ego. The insane ego, because of his fixed ideas or obsessions, fails to apprehend the qualities and relations of things and persons that the normal ego apprehends. The genius, on the contrary, is one who sees deeper and farther into the qualities and relations of social experience than does the average person.

different angles, but we do not see at all one another's personal feelings and inner attitudes. In the case of universals, such as logical and mathematical relationships, natural laws, types of order, and values and ends when these are considered to be objective realities, we have to do with entities which are common to the mental and the physical realms; and this community implies that the mental and the physical realms are somehow organic to one another, that they are the twofold and interrelated aspects of one order. The validity or trueness of universals and values means that they are constitutive principles of reality as a whole. They are discovered and formulated gradually and imperfectly by finite minds; but the latter, in this process of discovery and formulation, are finding and obeying, and thus developing into harmony with, the objective constitution of reality.

The nonmental conditions of sense data are brain and sense organs and qualitatively diverse energies operating in the public world of space time, such as: undulation of air particles, motions of physical particles, chemical transformations, molecular and intra-atomic or electronic energies, possible vibrations of the all-pervading ether, etc. Why not say that the latter are the primary and fundamental physical realities, whereas the sensory data are secondary or derivative? Does not Berkeleyan idealism rest on the confusion between sensory data and physical realities, between perceptions and stimuli? Mr. Bertrand Russell proposes that we shall define physical realities as the not-perceived entities which obey the laws of physics and our sensory data as series of aspects or perspectives of these realities.[3] For example, the rim of my teacup has an indefinite series of shapes, from circular through a variety of shapes, according to the respective spatial relations of myself and the cup. What I mean by saying that the cup's rim is *really* circular is, that is the shape it has in the position which is practically most important for me, namely, within easy reach of my hands. Common sense means by real size, real shape or other real sense qualities, those sensory appearances which are most relevant to our most constant practical purposes. Logically the flattest oval or ellipsoid shape in which the cup's rim appears, as when we stand it on the edge of the rim, is just as real as the circular shape it has in my hands. The visual shape of a stick

[3] *Cf.* B. Russell, *Our Knowledge of the External World,* Chaps. 3 and 4.

which is partly under water is really bent. But the tactual shape is straight and the visual stick when out of the water corresponds with the tactual shape in or out of the water, and this correspondence is for practical purposes the most important aspect of the whole indefinite series of aspects which the thing may present; so we call it the real stick. There are mathematical and physical laws by which we sum up in formulæ the relations between whole series of varying sense data such as the cup's series of shapes. Why not say then that the real physical object is the conceived entity that obeys these laws?

The question at issue here is chiefly a matter of terminology. In order to avoid the errors of subjectivism or mentalism it seems best to say that the *sensory appearances are the primary realities;* and that the reality of sense data, as due to the organic interdependence of the mind and physical things, involves the construction, starting from sense perception, of a doctrine as to what kinds of entities logically must exist in nature independent of sense perception—in other words a realistic theory of nature. I proceed to outline my own theory.

When we undertake to account for one sense datum or a series of sense data, we have to assume an interacting system of things in motion which give rise to the sensory data—undulating particles, molecular, atomic or intra-atomic centers of attraction and repulsion, etc. These we may call, to use Mr. C. D. Broad's happy phrase, the microscopic mechanisms. These microscopic or rather ultra-microscopic mechanisms are pulverized or comminuted macroscopic mechanisms. In other words, they are conceived by taking the most simple and manageable sense qualities; extension, figure, motion, mass, and reducing them to ever minuter proportions. They remain objects of possible perception. If our powers of sensory discrimination were fine enough they might be perceived. With an ultra-microscope we might see electrons. Actual sensory things are complexes of sensed qualities existing in spatial relations. The shape and color of a rose, for instance, are spatially coterminous. The place of one thing excludes another in so far as the thing is real, that is, has inertia or mass. Thus space-occupancy and circulation or movement through space are the most fundamental characteristics of physical things, their most constant qualities. By "space-occupancy" I mean inertia or mass and this implies force. Thus the ultimate things of physics

are space-occupying centers of force or inertia, since force is the power to do work and work consists either in moving something against an obstacle or in resisting movement. A physical thing is a power to move against another, and a power to resist movement by another. This most stubborn quality of bodies is regarded as its primary reality, but logically it is no more primary than figure, color, or "feel." The ultimate thing, so-called, of physics is thus a conceptual construct projected behind the sensory things and events in order to explain the changes in the latter. In short, the things and processes of physical theory—molecules, atoms, sub-atoms or electrons, undulation, rotation, etc.—are abstract entities denuded of those sensory qualities which do not lend themselves readily to mathematical treatment, and which cannot be made very small without seeming to disappear; such as color, sound, taste, odor. The "things" of physics are constructed from those empirical qualities which have relatively greatest constancy, and therefore are most readily susceptible of being made into mechanical models and having their behaviors formulated in mathematical terms. The laws of physical relationship are economic or shorthand generalizations in regard to the most uniform, simple, and calculable aspects of sensory data—those aspects which can be most easily manipulated in mechanical models. As thus conceived and manipulated, they cannot really exist and they do not explain the qualitative variety of empirical objects. Since the percipient, and also the secondary qualities of the objects perceived, are not amenable to mathematical and mechanical treatment they are dropped from the reckoning.

Thus the distinction between primary and secondary qualities, as being respectively objective and subjective, is invalid; however convenient it may be for the physicist. It is convenient for his purposes, since the space-mass-time-motion aspects of sense data are those most easily manipulated in mechanical and mathematical terms; but colors, tastes, sounds, and odors are, *experientially,* just as real as shapes, movements and masses. All the sensory qualities are real, since they belong to a world which consists of sensory and mental systems and of other systems in organic interdependence.

The attempt made in "energetic" philosophies of nature to reduce the physical world to a constellation of dimensionless punctiform centers of force or energy results in the absurdity of saying

—"everything is motion, but there is nothing which moves or is moved," "all is change but there is nothing which changes." [4]

The more thoroughly physical facts, such as heat, electricity, sound, or light, are analyzed, the clearer it becomes that these sensory data are due to the interactions of qualitatively different entities—physical entities, sensory system, and mind. Nature must consist of things, that is, real entities, which move and act, impinge on and interpenetrate one another. Certainly the ultimate things must at least be centers of activity; they must be things which have locations, habitations, and which move in the space-time order. The conclusion that I draw is that nature consists of a vast system of centers of activity which I call *individua* or *monads*. There are at least three kinds of these monads—physical, sentient, and intelligent monads. On the basis of evidence in hand from their respective modes of behavior, I am unable to determine whether all vital monads are sentient, or whether a vital monad is nothing more than a special constellation of physical or chemical-physical monads; but I am not able to see how the distinctive behavior of vital monads—adaptation, growth, restitution of lost parts, vicarious functioning, reproduction, and irritability—can be accounted for in purely physical and chemical terms. It seems to me probable then that nonliving and living monads are distinct kinds and possible that all vital monads are sentient. I think that there is an inherent difference of kind between merely sentient and rational or intelligent monads. Thus there are three distinct possible kinds of monads in nature. So far is the universe from being composed of elements all of the same kind and differing only quantitatively, that it consists of a vast multitude of several qualitatively different kinds of elements interrelated. Nor is nature simply qualitatively dual in

[4] This error, from which Leibniz and Boscovich were not free, and of which there are traces in Ostwald and other energeticists, seems to me to be a feature of Bergson's philosophy of nature. I am unable to understand or to follow Bergson's genesis of nature and space from duration and psychical life conceived as nonspatial. Bergson both presupposes and generates matter from his *élan vital*. Intellect, he says, has been evolved by the vital impetus as an instrument by which it may successfully operate upon solid and inert matter and thus surmount the latter. On the other hand, intellect and matter have been evolved together; matter thus appears to be a product of the very instrument which has been developed to circumvent it. Now, either the vital impetus must have generated matter, must have set up the obstacle as an aspect of its play with itself, as Fichte's ego set up the non-ego (*Anstoss*); or else materiality, which is spatiality, is not an internal product of the vital impetus, which is pure duration or becoming.

its constitution. It is at least triple, possibly quadruple or even multiple. There is a qualitative multiplicity as well as a quantitative multitude of elements in it.

Nature, in the sense of the whole of reality, consists of a vast system of interrelated monads, in which there are differences of kind, as well as indefinite gradations of degrees. Even the ultimate things of physics, whatever they be, cannot be all alike, though they may all consist of varying combinations of the same fundamental qualities. They must have a poor sort of individuality. Vital and sentient monads have still greater diversity in the combinations of their fundamental qualities. Individuality, in the sense of uniqueness and distinctness in the combination of fundamental qualities, increases as we pass from merely sentient to intelligent monads.

A higher type of monad includes in its service lower types. Physical monads are, in living organisms, subservient to vital and sentient monads. Vitality and sentience in turn are subservient to personality. The human organism is a complex of physico-chemical and vital monads controlled by an intelligent monad. The various types of monads, although differing in kind, are capable of affecting one another. Organisms both affect and are affected by the qualities of inorganic monads; minds both affect and in turn are affected by inorganic or vital monads; but, as nature rises in the scale towards more complex individuality, in other words towards personality, they have fuller internal unity of activity and life. The relative power of the governing principle increases. Thus an intelligent human monad has much more power of control over the physical environment than the merely sentient and vital monad which constitutes the being of the lower animal.

Nature as a whole consists in the organic interplay or interaction and intercommunication between the various types of monads. Thus nature is a vastly diversified system of individua, with an indefinitely complex and dynamic order of interrelatedness in action and passion among its members. It is a concrete and living totality. Nature truly owns the sensory qualities that we perceive and, doubtless, many that we do not perceive. It owns the æsthetic qualities. It owns all the wealth of form and color, of sound and movement, of taste, of beauty, grandeur, picturesque sublimity, terror, homely friendliness, vitality, and in-

cessant productivity, which we find in it; and doubtless it owns a vastly greater wealth of living qualities and meanings, which we could find were we equipped with more and finer, and more synoptic organs of response.

Man, with all his imperfections, is a living and creative agent, interpreter and contemplator, who shares, through all the aspects of his being, in the life of nature, through whose veins and in whose consciousness the life of nature moves and comes to awareness of itself. What nature might be like in the absence of human beings to perceive, to act, to enjoy her, we cannot know and we have no concern with such an unknown "X"; any more than we can form any inkling of what selves would be like if there were no world of physical nature. Man, both as a private and unique center of feeling and action and as a social being, is an organic part of nature. The richest, the most harmonious and comprehensive meanings of nature are those which are embodied in the richest, most harmonious and comprehensive psychical and spiritual life of man.

The relations between the percipient, his percepts, and the abstract world of the physicist I conceive to be as follows:

The conditions of sense perception are—(1) the conscious subject; (2) the sensory system composed of end organs, sensory nerves and brain; and (3) physical things. The sensory system is the medium of communication between the subject and the physical thing. If any part of the sensory system is deranged the power of perception is deranged; if any part is destroyed the corresponding power of perception is destroyed. The sensory system functions as a mechanism of selective condensation or concentration of certain aspects of the vastly complicated motions and qualitative changes in the ceaselessly mobile physical universe, which thus act as stimuli to the sensory-intellectual system. Thus the sensory nervous system is a centralizing or focalizing selective synthetic system, corresponding and instrumental to the centralizing selective and synthetic unity of the mind. Since, in the moment of perception, the sense percept is identical with the object perceived and, indeed, is a perspective or aspect of the object, there must be a fundamental identity of structure and process between the sensory system and the processes of the physical order. The organism must be a very complicated and delicately adjusted system of physical energies. The organ-

ism is a condensing and transforming machine, intermediary between the external world and the mind. Further evidence of this identity of type between the organism and extraorganic physical entities I find in the fact that the sensory system, when no longer in immediate contact with objects, is able to generate images of them. These images involve all parts of the sensory system and are nonmental, in the sense that the mind as cognitive does not produce them. A visual image involves the eye, the optic nerve, and the brain. The images are of the same general character as their extraorganic counterparts; only they are more fleeting, tenuous, and weaker, because of the much greater fineness, complication, and variety of functions demanded of the sensory system than of any part of the physical world. Any physical object is a particularized bit of physical structure and process. The percipient's organism is called upon to be responsive to a vast variety of differences in the structures and movements of things.

The sensory system need not radically distort the real natures of physical things. Normally, it condenses or epitomizes them. It focalizes them for action. Our sense percepts are series of aspects or views, selected from the multitude of specific aspects or qualities which things *become,* in the vastly complicated and changing relationships of the physical world. No percept is wholly false or illusory and none is wholly complete. The percipient, we may say, takes a compact succession or series of views or perspectives of the real things. Because of their similarities and of their importance for action, the differences between the successive views in such a series are practically negligible. Therefore they are consolidated into images which, fused with succeeding sense data, are taken to be the thing in its wholeness for purposes of behavior. My study chair may be perceived from an indefinite variety of points of view, but the practically most important ones are the similar or fairly continuous points of view which I get as I approach it to sit in it and actually do sit in it. Therefore, I ignore all the other possible aspects of the chair and run these into one as being the real chair.

I repeat that in perception the percept is identical with those partial aspects or perspectives of the real object that are significant for human behavior. Apart from the subject the world of physical objects is the realm of potential perceptions or sense

perceivables. It owns, *in posse,* all the colors, shapes, sounds, tastes, temperatures, etc.; that are perceived in it, and doubtless a great many qualities besides. If our sensory systems were different, were more microscopic for example, we should doubtless find a corresponding wealth of sensory details in the world.

The sense qualities, which constitute physical reality *for us,* are grouped as determinate individual things or unitary complexes. But all sense qualities are not equally individuated or particularized and localized. Some have preëminently the character of *continua,* in which the particular things are bathed. Thus there are very significant differences in the relational or connexional functions of the sensory attributes. In place of the illogical and untenable distinction between primary qualities, as objective, and secondary qualities as subjective, I propose a relativistic distinction between the sense qualities in terms of their respective degrees of spatial diffusiveness, pervasiveness, or degree of localization. Certain sense qualities are apparently all-pervasive or universally transmissible. They penetrate or encompass all particulars. The light that reveals a body and is reflected from it, absorbed by it, or that passes through it, the gravitational force that holds bodies together, the electrical undulations that penetrate them, the lines and fields of force that irradiate from them —all these qualities constitute as a body's field of action and passion the whole universe. With reference to them the particular thing is but a nodal point or transient center of interference in the ceaselessly mobile continuum of the universe, a passing concentration of intensity and velocity in the endless ebb and flow in a dynamic world. Other sense qualities, such as colors, odors, tastes, the "feel" of bodies, are more localized, specialized, static differentiations. The particular or individuum exists only as part of the total continuum of the physical universe; but certain of its qualities are more fluent and extensive in their relations than others. All the sense qualities are real, but some embody less of the thing's particularity and more of its dependence in the dynamic whole, while others embody more of its particularity and less of its dependence.

The physicist's world of atoms, electrons, etherial undulations, the ether continuum, and so forth, is a conceptual construction devised for his special purposes, which are to calculate and explain the general phenomena and interrelationships of space, time,

mass, motion, energy; and the more specific phenomena and interrelationships of heat, light, color, sound, electricity. It furthers these purposes of physics to construct conceptual mechanical and dynamical models that are simpler, finer, and more rigorous than sense data. The abstract world of the physicist is a product of the constructive imagination guided by logical postulates and controlled by reference to sense data. The difference between the poet's world of nature and the physicist's is that the former is not so closely controlled by sense data and is guided by the intuitive analogies of feeling rather than by logical postulates. The physicist's world has *logical reality;* it is *valid,* but it may or may not have *existential reality.* It may be that electrons and the ether actually exist. I do not know. At present they are hypothetical extensions and supplementations of empirical reality, justified by their logical uses. If they really exist they must have more qualities and a more determinate character than the physicist needs, for his abstract purposes, to endow them with. They cannot, if actual, have mere extension, figure, motion, mass. They must have potential color, sound, temperature, "feel." And they must be determinate things with some degree of individuality. If the electrons and the ether are experienced by some beings they are actual realities, not mere logical postulates. If they are capable of being perceived they are real. For in order that anything may be existentially real it must be actually perceived or capable of being perceived. It must be a sense perceivable. When you try to count out of the universe all actual and possible experience and all experients and ask what is left you can return no intelligible answer.

As to what exists in the physical realm, behind and beyond actual experience, our answer must be that we do not know and can only guess. If we should ever become able to say that we know, which is quite possible, then the behind and beyond would have ceased to be behind and beyond and would have become parts of the system of experience.[5]

[5] Since the above chapter was in substance written there has appeared a very important discussion of the relation between the world of sense and the world of physics in Bertrand Russell's *Our Knowledge of the External World as a Field for Scientific Method in Philosophy.* See lectures iii and iv. I have adopted from Mr. Russell the happy phrase "series of aspects." His discussions of time and space are also important. The perusal of Mr. Russell's book has not led me to modify my views, but it has helped me to clarify them, I hope.

APPENDIX

PANPSYCHISM

Panpsychism is a higher form of pan-biotism or hylozoism. The panpsychist holds not only that all nature is alive and, consequently, that the cleavage we make between the inorganic and the organic realms is simply due to our inability to recognize the vital processes in the inorganic realm; but that the whole of nature is the operation of a vast system of interrelated centers of experience or of psychical monads, and that unconscious and nonpsychical matter does not really exist. In modern philosophy this doctrine is held, among others, by Bruno, Leibniz, Berkeley, Fichte, Schopenhauer, Fechner, Lotze, and Paulsen. More recently it has been advanced by Josiah Royce, C. A. Strong, J. M. E. McTaggart, Mary W. Calkins, James Ward, and L. W. Stern.[6] It is erroneously attributed to William James. Whether Bergson is a panpsychist I cannot quite make out. Miss Calkins advances the following arguments on its behalf:

1. The only reality experienced by us is mental, and, since all reality is experienced, all reality must consist of experients.

2. She points to the growth of the dynamic conception of nature from the self-activity of Fichte, the will of Schopenhauer, to contemporary dynamic or energetic conceptions of nature, as supporting the doctrine. The value of this argument depends on whether one is constrained to admit that all force or energy is will force or will energy. Certainly present-day physicists do not appear to find themselves constrained to admit that molecules, atoms or electrons are centers of volition. I find it easier to conceive that there are some centers of activity that are not even momentarily conscious, than to conceive that atoms or electrons feel, desire and strive. They attract and repel one another, it is true; but it does not follow that they must love and hate and sorrow and rejoice. I do not understand why there should be such striking apparent differences in the behavior of persons and inanimate things, if things are but rudimentary persons. It is quite true that our laws of nature may all be only statistical averages, which leave out of account the indefinitely numerous individualities whose behavior they profess to generalize. But it does not follow that the individuals are all of the same fundamental type, namely persons or psychical monads.

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[6] Royce, *The World and the Individual*, Vol. II.
Ward, *The Realm of Ends.*
Stern, *Person und Sache.*
Mary W. Calkins, *Philosophical Review*, Vol. 28, pp. 115–146.

In order to account for the fact that we do not recognize the persons or selves that constitute the so-called inanimate realm, Miss Calkins makes an ingenious classification of relations between selves. There are, she says, three kinds of relationships between selves: 1. Intercommunicating relationships which obtain between human persons. 2. Communicating relationships which obtain between human persons and animals. I communicate with my dog and he with me. He obeys my behests and I recognize his deep devotion, but he does not know what I feel, nor I what he feels. 3. Noncommunicating relationships obtain between human persons and the lower animals, plants and inorganic things. But is it not a simpler hypothesis to say that I cannot hold communication with a cabbage or a rock because there is no one there to communicate with? The theory that we cannot communicate with these lower persons because of the differences between our time spans or rates of conscious rhythm is ingenious, but I do communicate with the dog and the cat whose time spans must be different from mine, and I simply cannot communicate with the cabbage or rock. Since I am unable to communicate with any other mind otherwise than through the medium of his body and my body, I do not see why I should assume; first, that both our bodies are made up of a lot of little minds and, second, that the physical bodies with which I can hold no psychical conversation are likewise made up of little minds.

The argument that in knowledge subject and object are strictly correlative, and therefore knowledge is unintelligible unless in every instance the object be another subject, has little or no value. It depends on the homeopathic dogma that a mind can know only that which is of the same character as itself. Now, the panpsychist admits that we know other minds only through their physical expressions. What point, then, is there in arguing, that I cannot know your mind unless your body be made up of inferior souls, through which my mind or superior soul has indirect intercourse with your mind? There is no logically significant difference between the problem as to how my mind can transcend its own subjective states in knowing another object, whether we state that other object to be a mind in a body, or a mind ruling a lot of little minds, or a body that has no mind at all. The panpsychist assumes; first, that in order that in knowledge a mind may transcend itself the objects of its knowing must be mental; second, he must then argue further that the minds which we all believe we know something of, namely other human minds, are known through the intercourse of the knower's mind, not directly with the other minds which he knows, but indirectly, through the medium of bodies which appear to be very

different from the minds which are known by means of them but which bodies must nevertheless be made up of inferior grades of minds. The whole argument is perverse, since it starts from an arbitrary assumption akin to the proposition that he who would drive fat oxen must himself be fat.

In truth we know finite mind only through its contrast with the nonmental order. Mind and physical nature are complementary aspects of the actual world. Their true relation is one of organic interdependence in the totality of the real. Reduce either term to complete identity with the other and both lose their distinctive meaning. The whole development of knowledge and practice, and, indeed, the entire evolution of selfhood, has involved this fundamental contrast and relation of physical nature and mind.

Panpsychism fails to account for the appearance of physical things with qualities empirically different from minds, and which yet serve as instruments for mind's self-expression. Certain specific physical expressions are taken to be signs of mind. Why should there be any signs required if panpsychism be true? Why should not bodiless minds know each other directly?

Our knowledge of other minds is ejective. We eject a mind into physical complexes wherever there are intelligible signs of mind.

Primitive man, we are told, ejected an anima or soul into every sort of physical object which arrested his attention. The progress of positive knowledge has been in the direction of limiting the scope of this ejective distribution of souls in nature. The differentiation and integration of experience through science has brought with it the narrower limitation of the ejective reference of minds to physical complexes that have close and weighty resemblance to our own bodies.

What do we find in inorganic nature which bears a close analogy to the unity of a rational mind? Suppose that all bodies are made up of momentary centers of consciousness, how does the panpsychist explain the evolution of these into human personalities without assuming the continuous unifying or synthetic activity of consciousness, which is rational mind? And, if he does assume this synthetic unity, what need is there of reducing physical nature to a system of inferior souls? Of course it may be said that these low-grade souls do not evolve into true selves. They always remain different in kind. But then the argument for panpsychism from the principle of continuity falls to the ground. There must in either case be novelty somewhere in the process, and the common sense view that physical things are not souls is the more consonant with the findings of experience. Why not admit, as simpler and not less intelligible, that souls and nonpsychical existents may interact?

The argument that the laws of nature are like acquired habits of mental and bodily behavior seems to me to rest on a rather far-fetched analogy. The argument on behalf of panpsychism that the uniformities in physical nature represent very rough and inaccurate statistical averages which conceal the real complexity, individuality, and variability of the finite souls which constitute physical nature, just as our human vital statistics cover up the rich complexity, individuality, and variability in the social world, is not convincing. Uniformity and predictability will be much less easy to find where individuality is complex and rich. Where there is readily calculable uniformity which can be applied in technical practices, does not that indicate the absence of *psychical* individuality? The fact that the laws of human behavior are more difficult to discover and formulate and so much less exact than the laws of the behavior of physical things seems pretty clearly to indicate that the latter are not immediate manifestations of finite centers of consciousness. This does not mean that there is no uniformity in human nature, but that it is uniformity of a different order than the physical. Intermediate between the two is biological uniformity.

In whatsoever manner psychical individuals may be distributed outside human ken, nature's controlling meaning is the development of psychical individuality. Matter is a positive factor in the cosmical process of organization or personalization. "Inorganic nature," regarded as existing independent of perceptual experience, is the abstract conceptual reality of a common world structure, which is taken to be the permanent and universal condition of perception. This conceptual reality is reached by elimination of the specific reactions of percipient organisms. For example, the luminiferous ether is the remainder of spatial motion required to account for perceptions of light and color when the specific reactions of the percipient have been deducted from the total phenomenon. Correlate these deductions with others derived from electric and magnetic phenomena and one gets the electro-magnetic theory of light. But these concepts are derivative, not primary realities. The latter are found in the realm of immediate experience. Our psychophysical organisms are non-eliminable elements in the totality of nature. The nonperceptual physical entity called in to explain perception has only a reality of the second order, that of logical relation to the primary reality. The general structures and forces of nature, the "matter," "space," "motion" and "body" of common sense, the "mass," "energy," "ether," "atom," "electron," etc., of science are *symbols* of certain universally experienced and persistent features of perception, which are describable and calculable in fairly simple and precise formulæ. The total

reality must be a system or society of interacting and interpatient beings, together with the general conditions of their social and individual lives. The unity of the whole is that of a teleological meaning whose character is most adequately expressed in personality.

Our next step will be an inquiry into the meaning of life, its evolution and its relation to mind.

CHAPTER XX

LIFE AND MECHANISM

Life may be described provisionally as the totality of the peculiar properties manifested by organized matter. They are, specifically, the following: (1) *irritability,* the specific kind of responsiveness to stimuli manifested by living beings; in the higher animals, at least, and possibly in all organisms, irritability is accompanied by *sensitivity;* (2) *tropism,* the impulse to turn towards or away from certain stimuli; this may be called reflex action, and instincts are complex reflexes: (3) the power of *self-reparation;* (4) the power of *adaptation* or *self-adjustment* and *self-development;* (5) the power of *self-reproduction with variation;* (6) the higher organisms have the additional power of *memory* and of *choice* among the memory elements reproduced from past experience; thus the higher organisms manifest *intelligence* and *will.* In short, in the case of man, at least, a living organism seems to be able to free itself from the blind routine of mechanical responses to external or innate internal stimuli through the modification of reflex responses by internal stimuli engendered by memory and intelligent reflection thereon. Summing up the characteristics of a living organism in its most developed form, we may say that an organism is a dynamic unity which adapts itself to its environment, develops, maintains, repairs and reproduces itself; exhibiting in these processes the powers of sentience, memory, selection and rearrangement of the elements of its experience for better adaptation of itself to the environment and of the environment to itself, and conscious choice in the sense of the variation of its innate powers of response to satisfy ends or desires formed by the activity of the intelligence from the matter of experience.[1]

[1] Professor J. S. Haldane argues persuasively from the physiological activities of the organism in maintaining *normals;* such as alveolar carbon dioxide pressure, the regulation of the hydrogen ion concentration and the balance of nutritive substances, that the normals of living organisms are the expression of what the organism is and that life itself is a unique reality. See his article "The New Physiology," *Science,* N. S., Vol. xliv, pp. 621–631.

Is there a supermechanical life principle operative in organized matter; or are the properties of the living organism, as above enumerated, nothing but effects of more complicated physicochemical mechanisms of the same order as those manifest in the realm of nonliving matter? The vitalist maintains, "that mechanical formulæ do not begin to answer the distinctively biological questions. . . . We need new concepts, such as that of the organism as an historic being, a genuine agent, a concrete individuality, which has traded with time and has enregistered within itself past experiences and experiments, and which has its conative bow ever bent towards the future. We need new concepts, because there are new facts to describe, which we cannot analyze away into simpler processes. . . . To the biologist the actualities are organisms and their doings, and life is a generalized concept denoting their peculiar quality." [2] In short, for the vitalist, while life is resident and operative in matter, life is not mere matter. Life is a principle which exerts a directive and selective control over physical energy. The universal tendency of the physical process to the degradation of energy is resisted by living beings which are able, within quite narrow limits, of course, to transform and direct physical energy in their own interests. Thus the individual organism is more than the physical or chemical sum of its parts. "Life is not a factorial element in any mechanical calculation of the work done by a living organism, since life is the managing director of the work." [3]

Vitalism, in the general sense of belief in the uniqueness of life, does not, properly speaking, mean that the living organism is in part a pure mechanism; and that, in addition to its mechanically working parts, there is a nonperceptual and indeterminable agency at work (an *entelechy* or *psychoid,* in Driesch's terms) which occasionally interferes with the operation of the machine. A biologist surely can have no use for such a notion. He is a scientist, and all science presupposes that there is an unequivocal or determinate sequence in the events with which it deals, in other words that definite antecedent conditions have definite consequents. If, as Jennings says,[4] Driesch's vitalism means that "two systems

[2] J. Arthur Thomson, Article "Life and Death," *Encyclopedia of Religion and Ethics,* Vol. VIII,

[3] J. G. Simpson, "Art. Biology," *Encyclopedia of Religion and Ethics.*

[4] Jennings, H. S., "Heredity and Personality," in *Science,* 1911 and *Science,* 1912.

absolutely identical in every physicochemical respect may behave differently under absolutely identical conditions" the conception is unscientific. The scientific biologist is concerned to determine one-one correspondences between physicochemical conditions and the phenomena of life. The scientist seeks to determine the "particular go" or "how" of events, and to make his determinations as exact as possible; but, if there are specific differences between those types of behavior associated with physicochemical mechanisms which are called organic types, and those types of mechanical behavior that have no accompanying organic phenomena, surely it is not the province of genuine science to assert dogmatically that there is nothing in the former complexes which differ in principle from the latter. A philosophical vitalist can admit that the life principle is a determinate power which works in specific fashions, but he contends that it differs uniquely from a non-living machine, and he makes this contention on good empirical grounds. He contends that the organism, as a whole, is a machine inhabited and directed by a principle having just those powers that are manifested in the phenomena of life, sentience, intelligence and will. Whether all these phenomena are manifested by all organisms is a question to be settled by empirical evidence.

What does the mechanist mean by saying that every organism is a machine? If he means only that every vital process involves a specific physicochemical process which is in one-one correspondence with it. I do not see why there should be any quarrel between the mechanist and the vitalist. If he means that there are no real differences between organic and inorganic processes, except differences in the complexity of the spatial configurations of their elements, that is an assumption which not only is far, as yet, from being proved but does not seem to do justice to the phenomena of life. As J. Arthur Thomson puts it, "an adequate idea of life requires a synthesis, and that again is impossible without sympathy. We must use our every-day experience of livingness . . . to enliven the larger data of biology . . . We must seek to envisage the variety of life—hundreds of thousands of distinct individualities or species; the abundance of life—like a river always tending to overflow its banks; the diffusion of life—exploring and exploiting every corner of land and sea; the insurgence of life—self-assertive, persistent, defiant, continually achieving the apparently impossible; the cyclical development of life—ever

passing from death, through love, to death; the intricacy of life—every cell a microcosm; the subtlety of life—every drop of blood an index of idiosyncracies; the interrelatedness of life—with myriad threads woven into a patterned web; the drama of life—plot within plot, age after age, with every conceivable illustration of the twin motives of hunger and love; the flux of life—even under our short-lived eyes; the progress of life—slowly creeping upward through unthinkable time, expressing itself in ever nobler forms; the beauty of life—every finished organism an artistic harmony; the morality of life—spending itself to the death for other than individual ends; the mentality of life—sometimes quietly dreaming, sometimes sleep walking, sometimes wide-awake; and the victory of life—subduing material things to its will, and in its highest reaches controlling itself towards an increasing purpose." [5]

In brief, then, the vitalist argues: (1) that the daily function of living bodies by which they maintain through delicate internal adjustments the normals or equilibria necessary to life cannot be accounted for in mechanical terms alone; (2) that the patent facts of organic plasticity manifested in the organism's adaptiveness and selectiveness are supermechanical; (3) that the development of the individual organism cannot be explained as due merely to a specialized configuration of nonliving physical elements; (4) that the evolution of organisms, with its wonderful variability, adaptiveness, coördination and correlation of parts and organs and modifications of the environmental conditions, is still less accountable on merely mechanical terms.

What is a machine? In the simplest terms a machine is a humanly devised contrivance for achieving an end. Thus, we speak of physical machines, of vital machines, such as the mechanism of digestion or speech or walking, of political and social and even of literary machinery. In this broad sense any system of interdependent parts, which when put in operation produces definite results, is a machine. In this loose sense of the term there is no incompatability between mechanism and guidance or direction. In mechanics a machine is an instrument by means of which we may change the direction and velocity of a given

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[5] "Life and Death" (Biological) Hastings' *Encyclopedia of Religion and Ethics*, Vol. VIII.

motion.[6] In this special sense a machine is a human contrivance, depending for its operation upon the utilization of the inanimate and therefore blindly working forces or motions which exist in nature independent of the human will. The mechanical conception of nature, taken on all fours, means that all the operations of nature result from the blind and inevitable alterations in the spatial configuration of mass particles. (Since the mass particles are ever in motion, all natural changes consist in the alteration of the distribution of the mass particles.) Given a specific distribution of mass particles, whatever follows therefrom is simply the blind resultant of the antecedent distribution of moving particles. The ultimate elements involved are changeless, the laws of motion are invariant and a quantitative equivalence runs through all the transformations. The latter conception is expressed in the principle of the conservation of energy, energy being regarded as the ground of motion. Nature, then, is an unimaginably vast and intricate system of mass units in motion. The entire system at any moment Y is the necessary mathematical or mechanical equivalent of the system at the next preceding moment X. All changes in the system of nature are simply blind and compensatory motions in the whole spatial configuration of mass units which repel and attract one another. The ultimate explanation of any change is a problem in kinematics, the geometry of motion. At the present time the prevailing tendency of physics is to find the ultimates in negatively and positively charged electrical units —electrons. Mass or inertia is a function of electric repulsion, and velocity and figure of motion are functions of electrical repulsion and attraction. Matter, in all its qualities, as these appear to our crude senses, is the resultant of the interrelations between the spatial configurations which we call physical bodies and the spatial configurations which we call living bodies. The perceptual qualities which are the bodies of common sense are the expressions of the microscopic mechanisms of the percipient organisms and external bodies in their microscopic intermotions. Images, concepts, feelings and appreciations are the echoes of the microscopic motions set up within the brain by the impact of microscopic motions external to the brain. The motions within the brain thus impelled die down slowly. Hobbes said, "Thought is decaying

[6] *Century Dictionary.*

sense"; and, we may add, sense is the intermingling of microscopic impacts and rebounds of mass units at the periphery of the organism. What the thing is that moves or whether, indeed, there be a thing that moves, deponent saith not. An electron is a center of electric charge and is in motion—but what is it that is in motion? Can a microscopic motion hit another microscopic motion without there being anything to hit or to be hit?

The up-to-date form of the mechanistic conception of nature is a very tenuous and elusive form of materialism. Nothing exists but matter and nothing happens but blindly pushed and pulled nonmatter in motion. Matter is force, but force or energy is motion. An immovable obstacle is a very stable system of microscopic motions—of what? Answer—of motions. An organism, whether it be a plant, an oyster or a man, is a fairly stable system of mechanical motions. Its colloidal constituents consist of chemical elements, and these in turn are systems of electrons, and an electron is a geometrical moving point—an event particle, as Mr. A. N. Whitehead calls it, or a point instant, as Mr. Samuel Alexander calls it. But where is a point and when is an instant? A point never seems to be where it is, nor an instant when it is. The latest form of materialism or mechanism seems to dissolve the solid world of common sense into a movie film that moves so rapidly that the distraught spectator can make out no figures in it. It seems like a rapidly dissolving phantasmagoria of complicated nothings. Like Bergson's real duration it is a present which is not a present, but is the invisible progress of the past gnawing into the future (whatever that may mean), and, as it moves with incredible swiftness, it casts a shadow called space in which we poor mortals try to stave off vertigo by vainly imagining that we are somewhat permanent and fairly solid centers of activity in interaction and interpassion with other centers of activity.

I am an empiricist, and I maintain that, certainly, in the case of human organisms, and, presumptively, in the case of other organisms, the living organism is a self-developing, self-adjusting, self-regulating, self-regenerating, self-reproducing principle which dwells and operates in a physicochemical machine. The organic machine is a super-machine, since it is the dwelling place of a living being. The biotic and psychic whole is greater than the physical or chemical sum of its parts. It is a living individual and its microscopic mechanisms are not the same when they

function as parts of the living individual and when they cease to do so. Nonliving elements are functionally organic to living beings. Their synthesis in an organism involves the emergence into patent activity of a vital principle which must have been latent antecedent to the specific synthesis which manifests the distinctively vital phenomena. Life is what it does, life is its own ways of behavior. A living being is the unitary subject, of which the specific predicates are just the various features of livingness. Obviously, an organism is the ephemeral product of the forces of a universe that is sublime and terrible, sublime in its superabundant creativeness, terrible to the single organism which it makes and destroys with such magnificent prodigality. Life does not arise from the lifeless, since there is no lifeless universe. Life appears in a vast variety and innumerable succession of individual forms, since the most salient character of the universe is just that it ceaselessly gives birth to living individuals. Life is no whit robbed of its meaning and place in reality by the admission that there is a one-one correspondence between every specific vital phenomenon and a specific physicochemical process. There are in the universe of realities nonliving elements, but every such element may be organic or functional to organisms, for the most concrete and specific character of reality as a whole is just that it endlessly gives rise to living individuals. The living and the nonliving do not exist apart from one another.

Logically the metaphysical problem of vitalism versus materialism or mechanism is simply the most striking form of the more general problem—whether reality as a whole is most adequately interpreted in terms of the poorest and most abstract features of experience, whether in order to understand reality as a whole we are to rub out all diversity, concreteness, individuality, qualitative discontinuity and novelty or creativeness; or whether we are to say that the full meaning of reality can only be garnered by taking account of the fact that empirically it ever gives rise to a multitude of multiform individualities, concrete and creative. The mechanical aspect of reality is real, but it is abstract. Living organisms, in their graduated ascent, are increasingly adequate revelations of the secret of reality. Livingness is the most significant characteristic of reality, to which nonlivingness is subservient or instrumental. Livingness, in turn, is the basis for the development of conscious mind. Conscious livingness realizes its fuller selfhood

in the achievement of personality. The organism is the basis of mind, and mind is the organism capable of becoming at once for itself and for the universe—enjoying its own growth through the conscious enjoyment of the universe.

Before we are in a position to appreciate the full meaning of personality it will be necessary for us to consider more in detail the relations of life, mind, and evolution. This we shall do in the next chapter.

CHAPTER XXI

EVOLUTION, LIFE AND MIND

I. The Factors of Organic Evolution

In its simplest and most general form the doctrine of evolution means that the higher, in the sense of the more complex, organic forms have ascended from the lower, in the sense of the simpler. organic forms; and that this ascent has been the result of the modification of the simpler forms through natural causes. By "natural causes" is meant causes of the same order as the causes that are now observed to operate in the origins and life histories of organisms. If all the qualities and modes of behavior of organisms at present existing, and therefore under observation, can be accounted for in mechanical terms, it follows that the entire evolutionary ascent of life as well as its primal origin can be accounted for in mechanical terms. If there are difficulties in the way of the complete explanation of life as it at present exists, these difficulties will, of course, be greatly increased, when one surveys the whole panorama of organic evolution. On the other hand, if there are no serious difficulties in the way of giving a mechanical explanation of the behavior of existing organisms, the same principles of explanation will apply to the origin and evolution of life. In short, the problem of evolution can only be solved by the application, to the history of life, of principles derived from an analysis of empirical livingness.

Evolution may be described in general terms, as Herbert Spencer describes it, as the change from simple to complex forms of existence characterized by concomitant processes of differentiation and integration; more briefly, organic evolution means increasing individuation, or the movement towards fuller selfhood. W. K. Clifford described it neatly as the tendency of the cosmic process to personify itself. Increase of individuation or selfhood involves increased power of association. The richest or most complex individualities, human persons, are capable of and do form

the most varied and extensive social organizations. Therefore we are justified in saying, on empirical grounds, that a *society* of rational and free persons is the highest stage of evolution that *we* can conceive. To say that the infusoria or the oyster might regard the movement of life from themselves onward as a retrogression is just to utter a smart quibble, for it is a fact that a human society of the type just indicated is the most dominant form of living organization. It is a foolish objection to raise to the interpretation of evolution as the progression of life towards the highest conceivable type of humanity, to say that it is a conceited anthropomorphism. For science, as well as philosophy, can never be anything else than an interpretation of human experience by the instrumentality of human thinking. And the first and last aim of philosophy is to interpret *human experience in its totality*, and to interpret the universe in terms of the totality of human experience.

Let us assume, then, that life first appeared on the earth, possibly in quite simple forms, as the immediate accompaniment of a specific chemical complex; since life, as we know it, manifests itself only in association with specific chemical configurations. Whether the simplest organisms are sentient it is impossible to say. Perhaps sentience is coextensive with organic responsiveness. Micro-organisms do manifest powers of discrimination and do use the trial and error methods which, at higher levels of organization, are regarded as indubitable signs of intelligence. Professor H. S. Jennings says, after a most exhaustive examination of the behavior of certain lower organisms, "So far as objective evidence goes there is no difference in kind, but a complete continuity between the behavior of lower and higher organisms";[1] "objective investigation is as favorable to the view of the general distribution of consciousness throughout animals as it could well be."[2] "It is," says J. Arthur Thomson, "impossible to think of intelligently controlled behavior evolving from behavior in which mentality was wholly absent, and it seems clearest to think of all organisms as psychophysical individualities."[3] Increase in variety, range and discriminativeness of sensitivity, and the appearance of memory with its power of enabling the organisms to profit from experience,

[1] Jennings, *Behavior of the Lower Organisms*, p. 335.
[2] *Ibid.*, p. 337.
[3] Thomson, *The System of Animate Nature*, Vol. I, Lecture vi, p. 219. The whole lecture is very interesting. Indeed the entire work is a valuable comprehensive treatment of the philosophy of biology, to be cordially recommended.

its power of conscious enregistration, as J. Arthur Thomson so well puts it, are correlated with the appearance, and increase in complexity and relative bulk, of the nervous system. It cannot well be gainsaid that intelligence and memory are, in those animal forms which most indubitably manifest them, in some sense functions of the nervous system. The big-brained animals are those that manifest the highest intelligence. In man, the most intelligent biological being, the cerebral cortex contains some 9000 millions of cells. Anatomically his brain is as far in advance of the brain of a chimpanzee as psychologically his mentality is in advance of the mentality of a chimpanzee.

But this argumentation cuts two ways. If the growth in mentality is correlated with the growth in the nervous system, can there be any mentality where there is no nervous system? How can paramœcium and stentor (two animalculæ studied by Jennings) have sentience if they have no nerve substance? Perhaps they are all nerves, as they are all stomachs, hands and feet. But they have no differentiated nerve-tissues. If the lowest animals have sentience why not plants? Was Wordsworth right in his belief that "every flower enjoys the air it breathes"? At most the consciousness of the lowest organisms would be like that of the body-monad of Leibniz—*mens momentanea, seu carens recordatione*—momentary and disconnected flashes of sentience. But it is quite as hard to see how this momentary sentience can be continuous with human reason and be the lineal ancestor thereof, as it is to see how from a merely physicochemical aggregate sentience could emerge as a result of "complication," to use the terms employed by Dr. S. Alexander. The evolutionist works under the domination of the principle of continuity and seeks to close all the gaps in the scale of livingness. A saltation, a gap, a breach of continuity, is stench to his nostrils. Nevertheless, unless he is a sheer dogmatic materialist, he must admit saltations, discontinuities. If evolution be not a creative process in which novelties emerge, it is meaningless. Is there not as great a breach of continuity between the mind of an Aristotle, a Shakespeare, or a Goethe on the one hand, and the mind of an orang-outang on the other hand, as there is between the mind of the orang-outang and the mind of a stentor? Is there not a striking discontinuity between the Javan or Sumatran jungle and the civilization of London or New York, a difference due to the difference in the

minds which inhabit them? It is one proposition to admit there are minds or feelings of some sort wherever there are the sorts of behavior which seem to imply feeling; quite another proposition to maintain that the mind of the white man has been evolved from a mind of the same order as the mind of a stentor. Does it follow that because we have vegetative needs therefore our minds are descended from the minds of plants? If there be real distinction between organized and unorganized matter, why boggle at admitting a distinction between sentient and insentient, rational and nonrational organisms? Either one should go the whole way and assume that all matter is besouled, and that the besouling only differs in degree of complication as the configuration of matter differs in like manner (universal hylozoism or hylopsychism à la Haeckel); or one should face the logical music and admit frankly that the attempt to make a fetish of the principle of continuity and explain the highest mentality as a descent or ascent from the lowest mentality, and this again from a mentality that is not mentality but only the "potency" thereof, is a quibble. When we survey the panorama of organized matter or livingness we find structural and functional gaps. When we survey the panorama of behavior, as implying consciousness and intelligence, we find even greater gaps. The mental differences between two human beings are much greater than the observable anatomical differences; the mental differences between an intelligent civilized human being and a monkey seem to me even greater than the anatomical differences.

Why not admit that "mind," as we know it in ourselves, is a creative infusion in the organic series; that, while human minds are descended from other human minds by psychogenesis, human mind cannot be accounted for as the descendant of infrahuman mind? Mind is the biggest kind of saltation or "mutation" in the evolutionary series. It is the most striking instance of a creative novelty in the history of life. But the story of life is crowded with such novelties. It seems to me to follow that the story of evolution is only the spreading out, over an indefinitely long past, of the creative process, which in childlike fashion our spiritual ancestors supposed to have taken place in six solar days; and that the entire story is the endless creative expression of a transcendent life which is the source and ground and goal of the whole process.

Sentiency is the beginning of consciousness. Evolutionists who have recognized the impossibility of accounting for consciousness, as a by-product of merely physical agencies, have assumed that sentiency is a primary factor in evolution. Such is the view, in one form or another, of E. D. Cope, C. S. Minot, Wilhelm Wundt, Josiah Royce, H. Bergson, and James Ward. Mr. Cope, for example, held that matter, force and consciousness were the primary factors in evolution; that all reflexes, and in general, all unconscious physiological activities, are of the same order as habits, which, originally acquired with conscious effort, become unconscious as they become automatic. The inorganic realm he conceived as the field of habit-automatisms acquired long ago. Quite similar is Wundt's view, except that Wundt interprets "force," which Cope makes a primary factor in evolution, in terms of striving or rudimentary volition. Quite similar in this respect to Wundt's view, is Bergson's doctrine of the vital impetus, which in turn is akin to the doctrine of LaMarck. This general doctrine can be traced back through the monads of Leibniz to the entelechies of Aristotle. The logical motive for such speculations is the *principle of continuity.* If life be a primary factor, whereas sentience and the higher forms of consciousness have subsequently come into being as a result of more complex organization of life, then one has to admit discontinuity or saltation in the evolution process. Now the supervention, upon simple sentience, of conscious memory, generalization from past experience and expectation of the future; the supervention, upon these qualities, of reflective analysis and synthesis and of self-consciousness; the appearance and development of rationality and sociality, the beginnings and growth of moral systems, of science and religion and art; in short the origin and development of the higher intelligence, social order, and human culture—all these are cases of *empirical discontinuity,* of *novelties* or *creative syntheses,* in the evolution process. Certainly, the appearance of social order and culture are no less striking and significant emergences of qualitative novelties in the evolution process than the appearance of life or simple sentience. Either we must admit a transcendent power of creative synthesis, which functions intermittently in the history of life; or we must say that the novelties which appear at successive critical points in the evolution process and which constitute nodes in the growth of life have been always present *potentially* or

latently in the life process. But, since it cannot be denied that significant novelties have appeared, both in the history of man and in the prehuman history of life, it seems to me that the above two alternatives really amount to the same thing. To deny that qualitatively novel powers and achievements have appeared in the life process is to deny the facts and, by implication, to assert that all history, all temporal process, is illusion. History means not the eternal recurrence of the same, but a constant succession of differences. "To make history" is to initiate real novelties. The words of the world-weary skeptic, "There is nothing new under the sun," are false. To admit significant novelties in the cosmic life process is to admit a power of creative synthesis. The purport of the admission for an interpretation of the universe would be the same, whether one held that this creative principle was immanent in the simplest forms of life or that it entered organisms and began to function in them at specific stages in their evolution, as a supervenient principle granted to the organic individual by the universal order and entering organisms from a transcendent spring of creativeness. The principle of continuity would seem to be most fully satisfied, on naturalistic premises, if one could conceive the creative principle as fully and adequately immanent in a world of atoms or of infusoria. This I am unable to do, since then the world of atoms or infusoria would not be what it appears to be; it would be the infinite source and ground of the whole created order. It would have become what the philosophical religionist means by "God."

II. The Mechanistic Doctrine of Evolution

Mechanistic metaphysics is materialism. A purely mechanistic doctrine of evolution means, briefly, that all the so-called creative novelties, richer individualities and forms of association that have emerged in the evolutionary process are nothing but the blind resultants of the blindly shifting, spatial configurations of mass particles.

According to the latest form of the atomic theory of matter, mass-particles are moving points which attract and repel one another because of their electric charges. If two particles attract one another it is because they have complementary, that is, positive and negative, charges. If they repel one another they must have

the same kinds of charges. The mass and the inertia, which is but another name for the resistance of a body to motion by the impact of another body, of a particle or a system of particles are functions of their electric charge. Thus the electronic theory of matter reduces all other qualitative diversities in the physical world to differences in the geometrical patterns of motions due solely to the attractions and repulsions of electrically charged points. Thus matter, in the ordinary sense of extended, and therefore divisible, bodies, is reduced to moving configurations of indivisible points. It is not unfair to say that, on this view, what common sense regards as matter consists of nonmatter in motion. The mechanistic doctrine of evolution would account for all the qualitative diversities and novelties of the evolution process, from planetesimals to man, as being the blind products of the incessant shifting in the configurations of electrified points. The laws of evolution are thus special cases of the laws of physical motion. The problem of evolution is a vast series of problems in the geometry of motion.

I regard this mechanical doctrine of evolution as inadequate on the following grounds:

1. The geometry of motion does not explain how one set of empirical physical qualities arises, and is transformed into another set of different qualities. The redistribution of electronic points may be a necessary condition of the existence of empirical qualities. I do not know, since I do not know whether matter, as it exists apart from the percipient organism, consists solely of electrified points in motion. If it does so consist the points must occupy space and move in it; and therefore empty space must be an objective reality. If there is no empty space then there can be no ultimately indivisible elements of matter; but I can form no consistent conception of an absolutely empty space. If all space be filled with force; if, in other words, space be the whole field of energy; then the ultimate physical reality must consist of concentration points or nodes of energy and their dynamic interrelations. *Then the ultimate physical reality is a system of interrelated energy centers.*

Let us return to the question of the inadequacy of an abstract kinematical explanation of empirical qualities. For example: the motions of the electrons which make up the neuro-muscular system of a violinist produce alterations in the arrangements of the elec-

trons which make up his violin; these alterations produce alterations in the motions of the electrons which make up my sensory and central nervous system. I see a violinist playing; I hear a system of sounds; and I feel emotions; I feel sweet or sad or stirring "music of humanity"; there are aroused in me compassionate, noble, or stirring thoughts; perhaps the music sets me off in a train of speculation. The mechanical theory has explained the varied and significant empirical qualities of the musical event and its consequences, by explaining them out of existence. But the concrete reality is the totality of empirical qualities. Mechanism alone does not account for the actual realm of experience. The latter is a varied and rich totality of living qualities with their meanings. It includes the so-called primary and secondary physical qualities, inextricably interfused with æsthetic and other affectional qualities and with meanings. A world denuded of all empirical qualities is not only not the actual world, it is not even an intelligible explanation of the latter. A percipient and active organism is a real factor in the constitution of actual nature; but a percipient and active organism is a living, feeling, thinking being. If percipients be illusory epiphenomena, then the world of pure mechanics is an even more ghostly and unaccountable illusion, since this world is the offspring of the thought of beings who perceive and think. In order to account for the world as it is, and to account for its becoming what it is, we must presuppose living, feeling, thinking beings; in short we must presuppose psychophysical organisms.

2. If the mechanical theory were an adequate account of nature, then the processes of the latter should be in general reversible. But these processes are irreversible. The second law of thermodynamics is a generalized statement of the irreversibility of the physical order. By the exercise of human ingenuity the downward course of physical events is in some degree altered. The universal process of the degradation of energy is temporarily arrested. But even this apparent exception is no real exception to the principle that the entropy of a physical system tends towards a maximum; that is, that energy is always passing from available to unavailable forms. The qualitative changes in nature, including all the novelties which arise in the evolutionary process and all the achievements of human art, seem to be conditioned by this principle. The energy of the sun's heat is transformed into chem-

ical energies of plants. Through metabolism and combustion these make food and fuel, and thus give rise to vital energy in animals and to industrial energy. Man eats food, and chemical energy is thus transformed directly into nervous and muscular energy, without passing through the form of physical heat energy, and, thus, perhaps without being *directly* subject to the law of entropy. Thus human energy is applied to arrest the process of degradation of physical energy, and to turn it into more available channels for the satisfaction of human wants. Thus man increases his own power, lengthens his own life, improves the chances of life for his offspring, multiplies his wants and their satisfactions; in short he enlarges and enhances the *psychical values* of existence; but always subject of the irreversible directions of the order of nature, as expressed in the second law of thermodynamics.

Increase of entropy dogs the footsteps of life, to issue in absolute death, unless we admit the possibility of some *creative source* of physical energy beyond our present ken. Such a source would be beyond the range of the purely mechanical conception of nature.[4]

Perhaps the marvelous manifestations of intra-atomic energy revealed in radioactive transformations give an inkling of how such a creative source may work. The facts of radioactivity may require the modification, or limitation of scope, of the second law of thermodynamics.

3. The law of the conservation of energy is frequently taken to be the basic principle of nature and to imply the absolute validity of mechanism. If the sum total of energy in the universe is constant, then every change in nature can mean only a quantitative alteration of relations among finite constellations of energy; and the universe must be a huge automatic machine whose parts may undergo innumerable alterations of position; but which, as a whole, preserves its identical character as a fixed quantity. The law of the conservation of energy proves nothing of the sort. In the first place, "energy" is a conceptual abstraction. What is found in concrete nature is an unceasing variety of qualitative changes, going through more or less definite sequences. In terms of conventional constants of "work," which means primarily the ability to move something against gravitational attraction, or

[4] For example the "sorting demon" of J. Clerk Maxwell's hypothesis is such an extramechanistic notion.

against some counteracting force, quantitative ratios have been established as approximately true for many of these transformations. In making these determinations the physicist abstracts from the qualitative uniqueness of the concrete empirical processes. He does not "explain" the actual complexities of the qualitative changes involved. His energy, which is assumed to be constant, is a construction of the scientific imagination. He postulates, and approximately verifies, its constancy only within the limits of finite and determinable closed systems of physical energy. He can know nothing of an absolute sum total of energy. The conservation of energy is a working hypothesis which works within given finite mechanical systems.

To say that the sum total of energy in the absolute system of the universe is constant seems to me unmeaning. If it be a sum total, then the energy of the universe must be a *so much,* however unimaginably great; it must be a *finite* quantity. A quantity is relative to a unit, hence the universe must consist of a finite number of units of energy. But our estimation through units is relative and, since the universe is relative to nothing else, it cannot be regarded as a finite quantity. Again, energy is the power of doing work, and to do work is to move something. Nothing moves the whole universe from one place to another, and the universe does not move itself against any obstacle. There seems to be no meaning in saying that the universe, in the sense of the absolute totality of things, does work.

Moreover, since any sum total, however great, is a finite quantity, if the universe has existed through indefinite past time, then, in accordance with the law of the degradation of energy the universe must long since have completely run down to the state of maximum entropy, and be now in a state of complete quiescence and death, all energy having long since passed into forms unavailing for the maintenance of life. Suppose, on the other hand, that the universe be assumed to have had a beginning in time. Then, to account for this beginning, one must go behind the principles of mechanics. And, if one suppose that in its present state it is a purely mechanical system, then a state must finally come about in which the universe will be an inert mass of uniform temperature. Then there will no longer be any work done, and, since energy means the power of doing work, all energy will have vanished from our supposed universe.

In brief, if the working postulates and conceptions of abstract mechanics and physics be set up as absolute metaphysical dogmas we run into a series of contradictions. The attempt to turn the concepts and formulæ of physics directly into metaphysics breaks down. The total universe cannot be a finite system of mechanical energies, and the laws of mechanics are not adequate expressions of the total reality. The obvious reason is that the procedure of mechanics is adapted to deal only with certain highly abstract aspects of the concrete world, namely, a thought constructed and conventional realm of pure space, time, motion, and mass.[5]

Every event in nature is the resultant of an indefinite complexity of determining conditions. In the quest for causal connections as naturalists we rightly ignore this indefinite complexity, since it would involve us in an endless search. We pick out the immediate and relatively constant antecedent of the particular type of event that we desire to account for. This antecedent is always one that, for the special purpose in hand, we can treat as the cause. The purpose may be to fix the guilt of a crime, to determine the conditions of profit in an industry, or to formulate a mechanical relation in physics or chemistry. The rigid bodies, the different types of motion, the lines and fields of force, or the atoms and electrons, of the physicist, are just as truly purposive constructions as are the "adaptations" and "selective agencies" of the biologist. And the latter are just as truly purposive constructions as the legal and moral constructions which we employ to interpret our complex social life.

It is by this method of abstraction and purposive construction that science arrives at its mechanico-causal formulæ. The teeming qualitative diversity of concrete experience is reduced thereby to identities of relation. The actual bases of these thought-constructed identities are incomplete similarities in the sequences of events. Repetition of resembling cases is the experiential ground for our causal determinations. Probably no two instances of causal change are absolutely the same.

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[5] These concepts as employed in physics are all convenient working abstractions, not accurate pictures of reality. Cf. James Ward, *Naturalism and Agnosticism, passim.*

III. Evolution and Teleology

Actual life and experience live *in* the present and *forwards* towards the future, while causal theory explains *retrospectively*. It tries to account for the present, which is real, by the artificial reconstruction of a past which no longer exists; but the ultimate value and purpose of all causal explanation is to enable the beings who make it, and can use it, to use the abstract skeletons of causal explanation in their present living experience in order to achieve in the future more satisfactory experience. All retrospection, from an individual's judgment of his own past to a review of the history of humanity, of life and the solar system, has its meaning and value solely in its uses for the enrichment and harmonization of life and experience, which is life as it feels to living individuals. Reality is living and prospective. Its historical retrospections are for the enhancement of its living forward movement. Life is individuated, and it moves towards increase of individuation and association. There is, in reality, no static and mechanical nature, except as a figment of the geometrizing intellect. Living nature is the forward movement of individuals towards increasing individuation and association, which is the complement of individuation. Evolution is a living analytic-synthetic or differentiating and integrating process, moving towards more individuation. The continuity of direction in the whole process can be understood fully in terms akin to what in human life is meant by value-inspired activity. When a new type of individual has appeared on the scene, we may, with fair measure of success, find close analogies to already existing types. Man is a good deal like the anthropoid ape. It may be true that the aboriginal man was first cousin to the ape. It may be true that there were apelike men before there were men, although I do not see by what right anyone can assert that there were with dogmatic certainty. Man may have appeared subsequently or prior to, or simultaneously with, the ape. At any rate, the differences between man and the ape are more significant for man and more disastrous for the ape than the resemblances of the two. The fallacy to which the mechanical evolutionist is most prone is the fallacy which consists in covertly assuming, where similarities or superficial identities of structure and behavior are found, that these are the all-important matters, and that the differences, uniquenesses, novelties are unimportant and therefore

nonexistent. The differences between truth and error, good and evil, happiness and unhappiness, success and failure, often turn on what, viewed quantitatively, are very slight matters; but the differences, *in terms of meaning and consequence,* may be tremendous. For life, action and feeling, differences are, as a rule, more important than resemblances. The same is true for the interpretation of the evolution process.

The actual world is a dynamic interplay of mutually adaptive energy centers. It is due, in its present phase, to the interplay in the past of energy centers ("monads"). The mutual adaptations of plants and animals and their environments; the interactions of organisms; the influences of soil, water, and climate on organisms; the influences of organisms on the soil, water, and probably even on climate:—all these are cases of dynamic interrelationship that transcend the categories of mere mechanism. We are not to seek the evidence for the dominance of livingness and its teleological efficacy, in the sense of its power of increasing subjugation of inorganic energies to the maintenance and enhancement of life, in any partial or special features in the evolution process. The best evidence for an immanent teleology is to be found in the whole system of dynamic and organic interrelatedness of the factors in evolution; and in the presence of a continuous thread or trend which, interwoven with the stuff of life, in the ceaselessly working loom of time, displays its pattern more clearly with the movement of the ages. The pattern is the growth and maintenance of individuality in association—*the trend of the evolution process towards personality.*

The Darwinians hold that natural selection, of those chance variations in the structure and functions of organs which fit their fortunate possessors to survive in the struggle for existence, is the chief method of organic evolution. Most of them admit other factors, such as sexual selection; and some of them admit, to a limited extent, the inheritance of the effects of use and disuse. Either they do not attempt to account for the origin of variations, or they assume that the origin, as well as the selection, of variations is due to the action of the physical environment. The intraorganic factors are the products of the extraorganic factors. The organism throughout its history is thus the passively moulded product of physical forces.

The direct stimulus of the environment alone does not account

for the origin and cumulative persistence of the most significant variations. Organisms are not copies or replicas of the environment, for their adaptive responses to external stimuli are very diversified and often complicated. Moreover, as Bergson has so effectively pointed out in his discussion of the eyes of the molluscs and vertebrates, organs differing in structure but similar in function have been developed along quite divergent lines of evolution.[6]

An organ such as the eye represents very manifold and complex delicately adjusted correlations. The whole organism of a higher mammal is a marvelously complex machine. That these correlations could have resulted from the chance persistence of chance combinations in the blind permutations and combinations of mass particles is improbable. A much coarser machine fashioned in human society implies an end. Why not then the whole infinitely complex adjustments and correlations of organisms? The very simplest and most general terms employed in biology—adjustment, adaptation, variation, selection, use, growth—are teleological or axiological concepts.

Vital evolution has taken definite directions along certain main lines. It has passed from the generalized to the specialized, from the homogeneous to the heterogenous, as Herbert Spencer put it. Evolution, however, has not been a simple change from the generalized to the specialized; for intelligence, the ruling power in human evolution, is the most highly generalized and supple instrument for the production of specialized adaptations to be found in the whole of nature. All man's specialization of organs are tributary to the generic function of intelligence, by virtue of which the latter is able to fashion and use new inventions, new specialties. Thus, with the supremacy of intelligence, the evolution process enters upon a decidedly new phase. Man, the tool maker, becomes the builder of civilization.

With constancy of external conditions there has taken place divergence of direction in organic types, but not the indefinite and chaotic diversity which would not strike out and hold to certain paths. The persistence of divergent development in a few channels, at first parallel and then separating more widely, is evidence, both of an original power of individualized responsiveness to the external situation, and of a capacity to hold to and enhance the

[6] Bergson, *Creative Evolution*, Chaps. 1 and 2.

kinds of response already made. Vital evolution is *orthogenetic,* in the general sense that it displays the persistence of specific directions. That this orthogenesis is not the mechanical result of the moulding power of the environment seems to be shown by the varied character of this persistence of direction. Moreover, the mere fact of variation does not account for the survival and transmission of variations in enhanced degree; such that they become important factors in the survival of their possessors. In order that correlated variations may become useful they must first be there and persist. What preserves the organism before the variations in question have become useful weapons in the struggle, and what enables a succession of generations to add their mites of increase to these same variations? Finally, there are many variations which seem to be without any purely survival value, such as rich coloration, and a multitude of minor variations in structure and ornamentation of organisms. Of what survival value are all the songs, colors, and activities of birds? Life seems very prodigal in its manifestations of formative energy.

In man there is still a more abundant outcrop of seemingly useless variations, such as his play, æsthetic, and speculative impulses. These are doubtless useful, in the long run and in the highest sense, by enhancing the dignity and value of his social and spiritual life, but they are without survival value in the physical struggle for individual existence. If the one ruling principle of vital evolution be the mechanical moulding of organisms by environmental forces, these qualities are unaccountable miracles.

Progressive adaptation, by which organisms gain the power in increasing degree to dominate the environment, is a teleological principle; no matter how in detail this adaptation may be achieved. The details may be susceptible of mechanical statement, may have become habit mechanisms; but the whole movement is supramechanical. Useful variations originate, doubtless evoked somehow by the demands of the environment on organisms to maintain themselves; but the power of response in a diversity of ways, some of which are cumulative and persistent, implies teleological activity in the organism; not a force that works unerringly, but one that achieves its ends by the trial and error method. Teleology in this general sense by no means implies conscious design or purpose. It does imply persistent striving in definite directions towards individuality, and this striving does eventuate finally, through

specific physicochemical combinations, in sentient selfhood, in previsional adjustment to and reshaping of the environment. Mechanism is everywhere present and nowhere the final interpretation. There is an immanent cosmic teleology operating in organisms.

IV. Life and Matter

Does vital evolution exhibit the working out of a single predesigned plan? The diversities, wastes, failures, monstrosities of life negative such an assumption. Bergson has pointed out that the error of radical finalism is to assume that the whole is given at one blow as a timeless actuality and that, by consequence, every step in the process is predetermined. Such a notion makes it inconceivable why there should be any evolution or any imperfections in the life process. Why should not the whole order of life have appeared and continued complete and perfect? His own theory seems to be that matter is the negative or obstructive factor in the evolution of life, an assemblage of obstacles which the life force must overcome in order to progress. Life is a finite impetus which must insinuate itself in matter, must compromise and use evasive and circuitous methods, in order to surmount the obstacles presented to it by matter. Actual evolution is the result of this struggle between life and matter. The vital impetus persistently experiments with ways and means to get itself forward and upward against the downward pull of matter. On the other hand he sometimes treats matter, that is, spatial extension, as if it were a by-product of life itself. The dualism is put into the vital impetus. Thus self-diremption or dialectic is conceived to dwell in the very heart of life and to move it from within.

This dualistic conception of the relation of life and matter I find unsatisfactory. Firstly, it seems to imply that the obstructiveness of matter is the chief cause of individual and racial variation and of death. Life without matter would then have been one immense and changeless ocean of being. Its impulse towards individuality and effort derives from life's being blocked or hemmed in by matter. Thus the one cosmic soul is fragmented into the multitude of finite individual souls, each freighted with a bit of the vital urge (*l'élan vital*). It is really a negative conception of the function of matter. It does not differ, in principle, from the Platonic-Aristotelian concept of matter as the partially

hindering condition, which is also the potency of individual existences. I do not think that death is a triumph of matter over life. It appears rather to be, in large measure, at least, the result of the struggle of life with life—of the more complex forms of life with the simpler. The germ theory of disease supports the latter view. It may be, however, that normally death, in the higher organisms, such as man, is but a change of material investiture, a critical phase of development. The old body, no longer adequate, may be left to the simpler organisms to use up.

Secondly, carbon, hydrogen, oxygen, nitrogen, phosphorus and sulphur are the direct material potentialities of life. Other chemical substances further life. The physical environment is fitted to be the theater of vital evolution in a positive sense. It is a platitude to say that the fact that organisms exist and multiply establishes the fitness of the material environment.

Thirdly, matter is not in itself a sufficient explanation of variation and individuality; and the increase of individuality is the meaning of evolution. My own view is that *matter is the positive potentiality of vital organization.* Matter in itself probably consists of simple and relatively unorganized centers of activity. The forms of individuation intermediate between unorganized matter and living organisms, such as the crystal, represent the first steps towards organization. Vital evolution is the organization of more complex individuals from these simpler centers of activity.

There are three levels of individuation. (1) The mere *particulæ* or *individua* of the physical universe. These are the discrete elements of matter—electrons or other unit centers of physical activity. But physical individua are not true individuals. They are meeting points of general relations or centers of interference in the flux of physical forces. Gravitational and electrical attraction, the lines and fields of force of magnetic and electrical theory, are phenomena of this general relationship. Physical individua are centers of activity, but their centrality is subordinate and their individuality poor and abstract. They are discrete units or differentiations in a continuous medium—the ether, or whatever may take the place of the ether in order to afford a conceptual basis for the dynamical interrelations of physical elements. Physical individua are but eddies in the stream of physical becoming. Their natures are exhausted in their external relation-

ships. They have only being-for-another no being-for-self, no self-maintaining center of individuality.

(2) The living organism more nearly approaches true individuality. It has greater complexity and unity of structure and function than a physical individuum. It has the beginnings of being-for-self, of self-related and self-maintaining individuality. Anabolism, self-movement, irritability and sensitivity, are phenomena of individual self-maintenance. Reproduction, and death are phenomena of relationship and dependence of the individual on the species and the environment.[7] The organism uses the physical individua which are its components, to develop more individuality. All its forces and elements are chemical and physical, but its power of rearrangement and synthesis of these elements shows that it is a higher and more complex individual unity. It develops highly differentiated structures which function as an integrated whole. The essence of the organism is organizing individuality.[8] Yet a mere organism is not a true self. The constituent cells and tissues are easily thrown off or grafted onto other organisms. The cells have a relatively large amount of independence. In reproduction the individual organism shows its dependence on the species or type. The self-maintaining power of the organism, its organizing principle of synthesis, seems to stand in a relatively external relation to its constituent elements. The protozoa are vague and fluid unities, and even the higher metazoa are communities of individua which are not wholly merged in the unity of the individual. *The evolution of organisms is a progress in individuation, in that its successive steps are stages in increasing domination of the environment, in a change from relative passivity to greater relative activity and self-assertion.* Contrast an amœba with a civilized man in this respect. The domination of the environment has been accomplished through the growth of the sensori-motor system culminating in the development of the cerebral nervous system, the instrument for the control of more remote environmental relations in time and space.

(3) Mind alone is capable of full individuality or selfhood.

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[7] *Cf. Hegel* on *Life*, Wallace's *Logic of Hegel*, pp. 358 ff.

[8] The doctrine that the organism is an individual whole and that life is eternal is developed in a very interesting fashion in the recent work by Professor W. E. Ritter, *The Unity of the Organism.* I am not clear as to whether he regards consciousness as coeval with the organism or a product of certain causal interactions between the organism and the environment.

It supervenes upon and uses the bodily organism as its locus of operation. Mind is the most intimate and integrated type of totality. Its elements have no existence apart from the unity. Mind is at once capable of very great complexity of structure and of a corresponding integrity of operation. Whereas, physical individua seem but abstract meeting points of general relations or forces, and whereas, in organisms the balance between the individuum or principle of synthesis and the dependence of its constituent elements and functions on the relationship to the environment is so unstable that the organism is ever on the point of dissolution into physical elements, mind is a creative as well as irradiating center of relationships, by virtue of which it dominates not only the immediate environment but controls to a large degree the more remote environment—the spatial relations in the distance and the temporal sequences bound up with these more distant connections. Thus a mind alone has true individuality, has being-in-and-for-self. It maintains itself by expanding into a fuller focus for cosmic relationships, and it enriches its being in depth by union with other minds.

Evolution is the process by which individual "souls" are fashioned. The successive levels which we have just considered are the main stages in the making of souls. The relatively bare individuality of physical force centers is the precondition of the living organism, which arises through the synthesis of a specific complex of physical centers. Whether every low-grade organism is sentient or not it is not possible to say definitely. But certainly organic irritability or sensitivity is the precondition of sentience. It is probable that the high tension created by the concentration and association of avenues and centers of organic irritability through a nervous system gives rise to sentience. The latter was at first evanescent, a momentary and fleeting consciousness without memory or reflection. It became more definitely organized, as the sense organs and centers were differentiated and coördinated with the instinctive motor reactions. As yet there was not a true self. There was *soul,* but *no self.* The biological soul life, once organized and developing into greater complexity and significance, as instrument of organic adaptation and domination of the environment, became a continuous and expanding factor in evolution. The temporal continuity of psychical life, in the succession of the generations, is a highly warranted hypothesis, which accounts for

the facts of psychical heredity. The elementary psychical variations in individuals and species are probably due to the new combinations of psychical capacity ever being struck out by conjugation. This inheritance of psychical unit characters, in the shape of instinct, impulse, and power of discrimination of the senses, and the activity and persistence of higher tendencies, which combine through crossing to produce a rich variety of temperaments or original natures in individuals, I do not doubt to be the natural basis of the human soul. Everyone who has studied the psychical resemblances of individuals to their ancestors has collected evidences that personalities, even of the more creative types, may largely be accounted for by the fortunate combinations of ancestral qualities which were isolated in their parents, grandparents or more remote ancestors.[9] Goethe's well-known words have often been cited in this connection:

Vom Vater hab' Ich die Statur
Des Leben's ernstes Fuehren
Vom Mütterchen die Frohnatur
Um Lust zu fabulieren.

The case of the "Jukes," a race of degenerates on the one hand, and the descendants of Jonathan Edwards on the other hand, are striking evidences in point.[10]

There is more in the true self or person than an inherited complex of psychical tendencies. Thus far *"Die Theile habt Ihr in der Hand, fehlt leider nur das geistige Band."* These tendencies are fused in the alembic of the *"spirit"* or *principle of intellectual synthesis,* which is the source of memory, analytic reflection, creative mental synthesis and rational will. The rational principle, which uses and controls the inherited tendencies of the biological soul life, cannot be derived from the latter. It is the creative principle of self-activity which functions in and through the biological soul and fashions the latter into a personality. This is the moral and rational "spirit" or selfhood.

Souls, then, are indeed fashioned in the creative process of evolution. Biological souls, through the operation of the "higher" principle of creative synthesis, become rational selves. Whence is this creative principle derived? Here one reaches the limits of

[9] The Mendelian theory of heredity, of course, supports this view.
[10] Walter, *Genetics,* Chap. 11.

experience and can only conjecture. The birth, from out the biological soul, of a rational and moral spirit or person points to the hypothesis that here one finds in the realm of the finite a principle which transcends the finite; in the evolution of life the self-expression of an ultimate spiritual and cosmic power which transcends the evolutionary process and yet is implicated in every step thereof. This hypothesis is akin to the view as to the origin and destiny of spirit advanced by religious and philosophical geniuses, that the spirit in man is the self-manifestation of the Divine Spirit, that thus the supreme cosmic spirit imparts himself in very truth to the soul of man. The "natural" man, that is, the biological man becomes, through the communication of this Divine Spark, a moral and rational self. In Leibniz' words spiritual monads are born by continuous fulgurations from the Divinity.

> Friendless was the Mighty Lord of Worlds,
> Felt defect—therefore created Spirits
> Blessed mirrors of His blessedness,
> From the chalice of the world of souls
> Foams for Him now infinitude.—SCHILLER, *Friendship*.

The evolution process is the striving of a vast multitude of individual centers with increasing individuation and association, progressing from blind self-maintenance and reproduction to rational self-determination. The failures, wastes, blind alleys, which life so often leads into, result from the fact that the system of animate nature is an open and developing system of individuated centers capable of effort and progress. If it be asked why the growth of life must take place in this way, why it should not be the placid unfolding of a perfectly predetermined plan, the only answer at hand is that growth through trial and error, and by effort, is the one way in which we can think the evolution of a world which brings forth ever enriching individuality, as it is the one way in which we can think the education of an individual.

In the human order mind becomes the dominant factor in the life system. It fashions the world of social and historical experience and tradition. Mind is the parent of language, industrial advance, the arts, manners, morals, sciences, and religions; by virtue of these, man's evolution becomes a cultural and purposive process which creates and maintains enjoyed values, in contrast with the blind striving, towards value, of subhuman nature. Thus

personality is the end term in the evolutionary process. Thus the physical order is made the servant of the type of being who seems to have emerged from its own bosom.

That which makes the evolution process more than a bare succession of atomic and jarring events is the continuity of its ever increasing movement towards personality. When one speaks of the evolution of the stellar cosmos, describe its elements and successive features how one may, the total meaning of the process is that its earlier and more chaotic conditions have eventuated in a cosmos. Cosmos could hardly have come from apparent chaos unless there was order or definite tendency at work in the chaos. What we commonly call chaos is only a different sort or phase of order.[11]

The determining factors of organic evolution have full meaning only as contributing elements in a process which is continuous and significant in what it brings forth. Certain values are attained, and the process passes through these to the achievement of still richer values. The biologist may disclaim any attempt to pass judgment on the values achieved in the process of evolution. He may say that man is not necessarily in any sense of value a higher animal than an amœba, but only a more complex organism, with more structures and functions and hence more troubles. But the biologist, nevertheless, does and must regard man as better equipped biologically for adjustment, self-maintenance, and self-development than an amœba, and when he pursues, with utter devotion, his science, he tacitly at least, admits that the life of a civilized thinking being is of more worth than the life of a jelly-fish. Biologically man is the highest animal because, in Professor Sherrington's words, he is best fitted to dominate his environment.[12] This domination becomes in turn the biological basis for the attainment of the spiritual life, the life of truly human culture which means the re-creation of the environment under the guidance of humanistic values.

The single thread of continuity or meaning, then, which binds together the successive stages of evolution is the emergence and increasing dominance of personal spirit or mind as the true home of values. Nature is the prelude to culture. Material and vital

[11] *Cf.* Bergson, *Creative Evolution,* Chap. 3.

[12] C. S. Sherrington. *The Integrative Action of the Central Nervous System.*

evolution are the overtures to man's realization of personality, by the organization and development of social cultural life. That the great epic of personality is as yet only imperfectly unfolded constitutes not a ground for pessimism but for hope. The process is a slow and severe one, but when man casts his reflective gaze backwards he may well be cheered and nerved to his great tasks by the long vista of progress behind him. It is a possibility so remote and unimaginable that we may intelligently reject it, to suppose that the entire evolution process, with its eventuation in spiritual culture, is simply and solely the result of a blind and contingent rearrangement of mass particles in space. If it is difficult to conceive that Plato's philosophy or Shakespeare's dramas could have occurred accidentally by the chance coincidence of the letters of the Greek or English alphabets, it is vastly more difficult to conceive that the continuity of order, direction, and outcome of the whole evolutionary process can have been the result of blind chance.

Whereas in human activity purpose means a foreseen and consciously willed end, in a very large fraction of biological processes there seems to be no clear evidence of conscious foresight. Are we then to admit unconscious teleology? It seems to me that we must regard unconscious teleology, the unconscious achievement of values, as playing a very considerable rôle in nature. The great bulk of organic functions, such as metabolism, the circulation and aeration of the blood, the summation of stimuli in the sense organs and cortical centers, are normally performed without consciousness. These functions are certainly teleological in their results. There are many instinctive psychical tendencies which begin without foresight, although they may be accompanied by consciousness. Such are the self-preservative reactions of anger, fear, simulation. Again there are the secondarily automatic or habitual modes of action which are acquired with consciousness, but are afterwards performed unconsciously; for example, walking, running, and, in general, operations involving manual skill. Perhaps, as some genetic psychologists hold,[13] all organic movements were originally accompanied by consciousness. At any rate there is no inherent difficulty in the conception of unconsciously useful and end-realizing activities. Even rational man often finds that the ends at which he consciously aimed were not

[13] Wilhelm Wundt, for example.

the true ends of his activities, and, in failing to achieve his purposes as he planned them, he has accomplished larger and worthier ends.

The lower animal organisms and plants are probably devoid of any foresight of the ends of their activities.

The older theories of creative intelligence, which made the world and wound it up like a perpetual and vastly intricate clockwork, and which intervened in the world process only on special occasions to work out some particular aim or make some improvement which has arisen in the Divine Mind as an afterthought consequent upon an unforeseen derangement of the cosmical machines, are thoroughly discredited. The notion of a special providence which, for example, answers prayers for rain or for succor from natural catastrophes by disturbing the causal sequences of nature, or which punishes the wickedness of a St. Pierre or a Messina by an earthquake and volcanic eruption, is incompatible with the conception of the system of nature as an orderly whole. The immanent purposiveness of nature consists in the systematic totality and continuity of life-realizing capacities,[14] possessed and exercised by its individual members. This does not mean that the entire order of nature may not be the self-expression of a Creative Activity which transcends nature. Of this, more anon. In the system of nature only conscious individuals are *values-in-themselves,* since only conscious individuals can become *ends-for-themselves* and *for one another.* The values of natural evolution are concentrated and summated in persons.

I have already referred to the seeming great waste, useless suffering and purposeless failure strewn by the wayside along the slow and toilsome pathway of nature's evolution. Why this immense and never wholly eliminated imperfection of the process, if nature be indeed a value-realizing system? I shall not here forestall what I shall have to say later in regard to the specific problem of evil in the life of man. I desire now to point out in regard to this most general form of the question: 1. Teleology or value-production has no meaning apart from the striving and self-activity through which obstacles are surmounted, and apparently alien and stubborn materials are transmuted into instrumentalities of achievement. If life be teleological, then life is impossible

[14] *Cf.* Aristotle's *Entelechies.*

without self-activity and striving against hindrances. 2. A world of living individuals is unthinkable without conflict and striving. The self-active elements of this world interact as members in an inter-related totality, elements in a self-organizing system. In this each must suffer as well as act, since each is a member of a world, and has at best only a relative independence. And life, individuality, self-conscious will and reason, can exist only through purposive striving. A world of feeling and thinking beings without interests to be satisfied and ends to be willed is surely unintelligible.

Leibniz' question—is this the best of all possible worlds?—only serves to throw dust in our eyes. Any other world that may be imagined will be only a variant of this one. The actual world is neither the best nor the worst of many *possible* worlds. Since it is actual it is the only really possible world. One world at a time! If you ask, why this motley world, your question is meaningless. "Motley's the garb we wear." There can be no ulterior reason why the universe, that is the organized whole of existence, is as it is. Such a reason would imply an antecedent universe, that is the existence of something before anything existed, which would be the nonexistent ground of existence.

BOOK IV

PERSONALITY AND ITS VALUES—PHILOSOPHY OF SELFHOOD AND SOCIETY

CHAPTER XXII

THE PROBLEM OF PERSONALITY

Among empirical existents human personality is the richest monad, the fullest microcosm. It is a vortex in the universal flux. All the forces of the universe flow through it. It is subject to all the winds and tides of cosmic weather; it is bestial and Godlike, compounded of clay and fire. It rises from the slime and ooze of the primal world stuff to the contemplation of the stars, to love stronger than death, to creative imaginings of an ideal world. It visions values which, could they be realized in society, would make of mankind a Godlike community. It is racked by pain and driven by hunger and lust. But it can live and die for loved ones, for a country, for a cause, for an illusion. It is moved by consuming greed and can give, asking nothing in return. It lives by bread but not by bread alone; it can make the earth a shambles or a garden of peace, justice and friendship. All the counter currents and conflicts of the universe live in intensified individuation in the soul of man. Mankind produces a Caligula and a Jesus, a Caesar Borgia and a St. Francis, a gibbering idiot and a Shakespeare. In man, the most complex and contradictory individuation of the universal forces, lives the best key to the interpretation of the meaning of the whole; the best key, since all other keys are manmade, and man himself is the final clew to all the partial clews he makes or finds.

In view of the lack of agreement in the use of the terms *individuality, selfhood* and *personality* and the corresponding concrete terms *individual, self* and *person,* I shall now define briefly the sense in which these terms are used by me. The full significance of these definitions can only be appreciated by a consideration of the whole drift of our discussion.

By *individual* I mean any being that is an indivisible unity of diverse parts or aspects and, hence, in which the unity and the diversity are interdependent. An individual can be divided or disintegrated, but then it ceases to be itself; it loses its distinctive

character as a whole and its individuality cannot be restored. An organism is an individual; a machine is not, since its *parts* can be assembled, taken apart and reassembled. In a machine parts of like structure can be substituted at will. This is partially true of an organism; and indeed, an organism has a mechanical basis; but, in the latter, the substituted parts must *grow* into the whole. In grafting or inserting a part in an organism we are dealing with colonies of subindividuals. A living cell is a subindividual and the whole organism a community of subindividuals. Thus individuality involves living unity-in-diversity or organization, distinctness and relations. It involves uniqueness of being and life, but not isolation.

In a broad sense an individual is a *self,* but I shall usually confine the application of the term "self" to conscious individuals.

By *person* I shall mean a well-organized and reflective or rational individual; a being that is aware of, and lives consciously in, its relations; that realizes its life, and knows itself as such, as a thinking and self-active self, a responsible center of thought, valuation and choice; unique and having immediate and, in a sense, *absolute value* as just this center of spiritual life, while the felt content and meaning of this unique life is filled up with significant thoughts and deeds of which *feeling* is the mother-liquor or matrix. In short, a person, while unique and private in its inner existence, realizes the worth of true existence through constantly going beyond or transcending its mere selfhood and living in universal relations to nature, fellowman and God. A person is a *"spirit."* It means the same as "soul" in popular usage, when the implications of popular usage are thought out. A self is an *ego,* but a person is more than a mere ego. A person is an individual self, but an individual self need not be an actualized person. A self contains the potentiality of personality.

In recent objective idealism, notably in the works of Messrs. Royce, Bradley and Bosanquet, the term *individuality* is used, I think, in much the same sense as the term personality is here used. I have departed from their usage, on the ground that my own is more in harmony with the development of the terminology of western thought. Through the history of western thought, from the establishment of Christianity as a doctrinal system, the prevailing tendency in religious, ethical and political thought has been to use the term personality to designate the qualities or character-

istics of the most all-inclusive or most universal, rational and ethical or spiritual individuality or selfhood. The person is not merely unique or distinctive, but at once the most deeply inward self-determining and worthful and the most universal or deeply and widely related type of selfhood. It is spirit; and, I may add, to speak of impersonal "spirit" seems to me to be to talk nonsense.[1]

I proceed now to consider the nature and relations of selfhood and its evolution into its highest form, personality.

The following may be taken, by way of introduction, as a general characterization of a conscious self: (1) The self is a unity which persists through changing experiences. However much my ideas and feelings may vary from time to time, I experience, and, through memory, am conscious of a continuing thread of self-identity which binds these changing events of conscious life together into the life of myself. (2) The self is complex. My self lives in, attends to, and is controlled by, different ideas and feelings, and takes different attitudes in work and play, in business life, in the family circle, in society, and in private meditation. (3) The self is felt as a unique individuality. In normal life the self-identities even of lovers or intimate friends are not confused. Even "two hearts that beat as one, two souls with but a single thought" remain forever two. Two friends may have similar ideas and feelings about politics, art, religion and philosophy, but they do not thereby become one self. Damon and Pythias remain distinct selves to the end of the chapter. (4) The self lives and is conscious only in relation to other selves and to physical things. We can frame no notion of what a self would be which did not function, as conscious being, in interaction and interpassion with other selves and with a physical world.

In order to gain a fuller insight into the nature of the self I shall have recourse to psychological analysis and to the facts of psychophysiology and psychophysics. I shall, moreover, be

[1] Mr. Clement C. J. Webb in his Gifford Lectures; *God and Personality*, Lectures ii and iv, and *Divine Personality and Human Life*, Lecture ix, explains the preference of Bosanquet for *Individuality* over *Personality* as the ultimate principle of reality on the two grounds that the juridical and social associations of the term personality suggest its finitude and that the ethical notion of complete self-surrender implies the "adjectival" or transitional character of personality. (J. G. Fichte held a similar view.) Both these grounds are contested by Mr. Webb—rightly, I hold. Lotze held that only the absolute or God can be the true personality; in human beings it is imperfect.

particularly concerned to insist that, in order to form an adequate conception of the self, the latter must be interpreted in terms of its social and cultural relationships, and as an active center of valuation and volition. The present inquiry might, indeed, be called *Metaphysics* and *Metasociology.*

What is the relation of the present inquiry to psychology? This question cannot be answered in brief and categorical fashion, since there is no uniform attitude among psychologists, either as to whether there is a place in their science for the concept of the self, or as to what it means in psychology.

In psychology of the *structural* and *analytical type,* which dissects the flux of concrete conscious processes into mental elements (sensations, images, impulsions, affections and abstract ideas), considered in abstraction from the owner of these processes, there is no place for an enduring and unitary self. "Constituent parts alone roll on." There is no soul. What the naïve mind calls the soul or personality is an ever shifting complex of sensations, perceptions, feelings, images and strivings.

An excellent statement of the standpoint of analytical and structural psychology is the following. Mind, says Titchener,[2] is "the sum total of human experience considered as dependent upon the experiencing person. We have said, further, that the phrase 'experiencing person' means the living body, the organized individual; and we have hinted that, for psychological purposes, the living body may be reduced to the nervous system and its attachments. Mind thus becomes the sum total of human experience considered as dependent upon a nervous system. And since human experience is always process, occurrence, and the dependent aspect of human experience is its mental aspect, we may say, more shortly, that mind is the sum total of mental process." "The word 'self,' as a psychological rubric, means the particular combination of talents, temperament, and character that makes up an individual mind. Self, as a conscious experience, is any complex of mental processes that means some temporary phase of this combination and a self-consciousness is a consciousness in which the self, as a conscious experience, is focal. It has certain fairly constant constituents; organic sensations, a visual perception or idea of the body, and the verbal ideas of 'I' and 'my'." Titchener further

[2] Textbook of Psychology, p. 16.

says: "the mental life as the author has lived it is very intermittently personal." [3]

In short, from the standpoint of this type of psychology the so-called mental self is simply one occasional and variable experiential complex in the total flow of consciousness, and it consists chiefly of organic sensations. The belief in a unitary and persistent principle of selfhood is either to be regarded as a survival of the inaccuracies of common sense thinking; or, if it have any place in more rigorous thinking, that place is in metaphysics.

A psychology which sets out to analyze the concrete mental life into a complex of sensational and affectional elements, must, as Hume would say, ask in regard to every concept, including that of the self—"produce me the corresponding impression!" This is a legitimate procedure. A philosopher can have no quarrel with any psychologist's right thus to circumscribe and isolate the area and method of his investigations, provided only that the psychologist sticks to his last, and does not assume that his is the only justifiable procedure in dealing with the self. This type of psychology accepts nothing as a datum which cannot be analyzed out as a *particular element* in an empirical conscious complex. It seeks the sensational, affective and imaginistic elements of mind and the laws of their coexistence and succession. In the next chapter I shall try to show that a psychology of this type is, by its very starting point and method, shut out from an adequate conception of the self.

The *functional type* of psychology lays stress on the activities and uses of consciousness in the development and maintenance of life. The processes of sensation, perception, imagination, judgment, inference, memory, impulse, emotion, and so forth, are regarded as instruments for conserving and enhancing the life of the individual and of the species in their biological and social relationships.[4] The mind of man is viewed as a weapon in the struggle for existence, an instrument of biological adaptation to environment, engendered in the evolution process through causes still, in large part, unknown. The evolutionary and functional standpoint has thrown very valuable light on the place of consciousness in the natural order. In estimating the biological significance of con-

[3] *Ibid.*, pp. 544, 545.

[4] Wm. James, *Principles of Psychology;* John Dewey, *The Influence of Darwin and Other Essays.*

sciousness it must, however, be borne in mind that the life which consciousness thus serves is the life of mind itself, conscious and rational life, not mere animal existence. Hence mind is, in one sense, the end or aim of its own functioning. Conscious life at its higher levels functions for itself. Being an instrument which enjoys its own functioning, mind strives to enhance and conserve the affective values of its own operations as ends-in-themselves. To have overlooked this truth is the cardinal error of the crasser forms of utilitarianism in ethics and social philosophy.

A third type of psychology, which insists on the central importance of the self for psychological investigation, has been called *"self-psychology."* [5] Psychologists of this type insist that conscious processes always belong to an individual, and that to ignore this fundamental principle is to distort the facts with which psychology deals. It will become evident, as we proceed, that the standpoint of the present work is very close to that of the self-psychology. Indeed, in so far as the present volume is concerned with the analysis and description of human nature, its standpoint is the same as that of a broadly conceived self-psychology. All structural analysis is analysis of the nature of psychical individuals, and all functional interpretations of mental processes must have reference to these processes as functions of human individuality.

Recently, considerable attention has been given to the methods of determining the psychological variations of individuals, of defining the chief significant types of individuality, and of describing more accurately the psychical life of individuals in terms of these variations. The name "differential psychology" is given to this field. It is as yet only in its infancy, but it stands in the very closest relation to our present inquiry. In fact, differential psychology is concerned, in its larger aspects, precisely with the empirical groundwork for a philosophy of selves.[6]

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[5] M. W. Calkins, *An Introduction to Psychology*, and *A First Book in Psychology*, 1910; "Psychology as Science of Self"; *Journal of Philosophy, Psychology, and Scientific Methods*, Vol. v, 1908, pp. 12 ff., 64 ff., 113 ff. W. Stern, *Person und Sache*, I; James Ward, article "Psychology," *Encyclopædia Britannica*, 11th edition, Vol. XXII; the same author, *Psychological Principles*.

[6] The most systematic treatment, thus far, of individual psychology is W. Stern's *Differentielle Psychologie*, Leipzig, 1911. See also, W. Dilthey, *Beiträge zum Studium der Individualität*. Akad-Ber., Berlin, 1896, pp. 295–

Lately a professedly new type of psychology has come into being calling itself "behaviorism." Psychology is defined as the science of human and animal behavior. The radical behaviorist insists that psychology is "a purely objective experimental branch of natural science. Its theoretical goal is the prediction and control of behavior. Introspection forms no essential part of its methods, nor is the scientific value of its data dependent upon the readiness with which these lend themselves to introspection in terms of consciousness." [7] The behaviorist can write a psychology and never use the terms "consciousness, mental state, mind, content, introspectively verifiable imagery and the like." [8]

If one wishes to reduce psychology to such terms, he ought "to go the whole hog" and deny the existence of a distinct science of psychology. It becomes a misleading name for the physiology of the nervous and muscular systems in their interrelations.

The one differentiating attribute of psychology is that it studies *consciousness,* not indeed merely "as such," but as its primary datum. Certainly, consciousness behaves, and conscious behavior is a specific kind of behavior. It delays reactions to stimuli and effects novel junctions between the sensorial system and the motor or response system of the organism, thus creating novel types of response.

Psychology must have constant regard to the motor and physically and socially objective correlations of consciousness. It must make experimental observations upon human beings and animals. It must study the behavior of selves in society and solitude, and the social objectifications of psychophysical process in language, social customs, institutions and sociopsychical currents. But all these materials and methods, to yield *psychological* results, must be interpreted in terms of their relations to consciousness and mind. Thus it would not be misleading to define *psychology* as *the science of human behavior,* provided it be understood that distinctly human behavior is the conduct of selves or persons capable of

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335, and my articles "The Study of Individuality," *Philosophical Review,* Vol. xi, pp. 565–575, and "The Psychological Self and the Actual Personality" in the same journal, Vol. xiv, pp. 669–683.

[7] John B. Watson, *Psychological Review,* Vol. xx, 1913, pp. 158–177, and *Behavior,* A Textbook of Psychology. For a good brief discussion of "self-psychology" as behavioristic see M. W. Calkins, "The Truly Psychological Behaviorism," *Psychological Review,* Vol. 28, 1921, pp. 1–18.

[8] Watson, *Psychological Review,* Vol. xx, p. 166.

rational reflection, selective evaluation of interests and motives; and, therefore, of conscious, purposive and deliberately chosen acts. The extreme behaviorist of to-day regards the self as being only an elaborate piece of physicochemical mechanism. The latter view is false to the facts of human nature.[9]

There is abroad to-day a theory of the sciences which divides the field of theoretical knowledge into the natural sciences and the humanistic or social sciences. This division corresponds very well to the differences in materials and methods in the study of physical nature and human nature, respectively. But if, starting from this division, the claim is made that psychology is the basic social or humanistic science, of which logic, ethics, æsthetics, sociology, history and the science of religion are branches, we must ask—what kind of psychology?

If psychology be defined as the study simply of neuro-muscular mechanisms, certainly it cannot furnish an adequate groundwork for logic and ethics; for, from this standpoint, psychology is but a branch of biology and biology a special division of physics; thus the so-called humanistic sciences become branches of physics. But there can be no science of any sort, no distinction between truth and error, unless there are norms or rational standards of judgment which are presupposed and used in all systematic inquiry. If there is to be science, the logical and ethical norms which the investigator must obey, in order truly to know, must be objectively valid; these norms are objective criteria and cannot be mere occasional products of a complex of mechanical causes. If they were but this, judgments of causal connection would not be objectively true; they would be mere events on the same level as all sorts of errors, follies or crimes. Even if psychology be defined as the analytical and causal science of conscious processes it presupposes the same norms. In order that truth may be attained by man he must obey rational and objective criteria of thinking and conduct (thinking is a species of conduct). If logic and ethics are purely descriptive sciences of psychophysical events, then there are no logical and ethical standards. For the psychologist as such can know nothing of true and false unless he employs the logical

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[9] A more moderate behaviorism is expounded, in H. C. Warren's *Human Psychology*. Woodworth's *Psychology* seems to me to include what is of lasting value in the behavioristic standpoint.

standards; just as he can know nothing of good and bad unless he employs the ethical standards. Thus to make psychology the sole basis of logic and ethics is to destroy the logical and ethical standards and to involve in the same ruin psychology and all other sciences, since all sciences presuppose that there are objectively valid norms of thinking. Logic, the science of the norms and methods of correct thinking, is the *scientia scientiarum.* Ethical norms are presupposed in science too, since there is an ethics of thought; it is the duty of the thinker to obey the norms of thought.

Logical and ethical judgments are *judgments of value.* Such judgments are *acts of reason,* and reason functions only in persons. These judgments claim objective validity; and this claim, if allowed, will involve the admission that the rational person, in making such judgments, is an organ of the ultimate meaning of reality. In order that we may know what personality is, it is necessary above all, to take full account of those mental acts of the self which are embodied or expressed in its logical, ethical, æsthetic and religious culture systems. In science, the history of morality, the arts, and religion, we find the best clews to the process and meaning of personality. As creator of intrinsic values and of cultural systems for the realization of these values, personality reveals a higher level of reality than is expressed in any system of physical or even vital forces. Man's cultural and spiritual activity is just as truly an offspring of the cosmos as is the most enormous star; and it is much more significant.

Considerations of the above sort seem to be at the root of the movement against "psychologism" and for the priority of logic, in recent German philosophy, in which Husserl, Pfänder, Scheler, Stumpf and others have participated. Th. Lipps and O. Kuelpe have tried to combine logic and psychology by giving to the latter a broader and more philosophical character than psychology has lately taken in America. I regret the present drifting apart of psychological theory and philosophy as harmful to both. There is, of course, a multitude of experimental problems which require division of labor; but, when psychology becomes entirely a trafficking with physiological reactions and regards the higher and more complex conscious activities of man as not a legitimate subject of systematic inquiry by any other means than observations with physiological instruments on animal and human bodies, there is all the more need, with this impoverishment of psychology, that

philosophers should cultivate psychology as Wundt, for an illustrious example, did in his great work on *Folk Psychology.*[10]

I may add that the "Psychology of Act" of Brentano and his followers, among whom would be numbered, in varying measure, all the aforementioned German writers, obviously has very close affinities with the American and English "self-psychology."

Psychology may be regarded as a transitional science, one which occupies a middle ground between the natural and the humanistic or cultural sciences. Its roots are in biology, its branches are the empirical social sciences, such as the psychology of ethics and sociology; and it culminates in philosophy. In *social psychology* and in the *comparative psychology of the history of science, morality, art,* and *religion,* we shall find important data and principles for a philosophy of personality. From these fields and from the three philosophical culture sciences or sciences of intrinsic values—namely, ethics, æsthetics, and the philosophy of religion—we shall draw most of our data, *since we are concerned with the self,* not so much in the sense of a biological organism as, *in the sense of a reflective thinker and agent who is socialized, moralized,* and *rationalized through participation in the social-historical life of culture.*

In short, if psychology be regarded as a purely natural causal science, which is concerned only with the analysis and description of mental elements and complexes in their dependence on the nervous system, and which employs only the mechanical or physical concepts of relation, causation and function, it cannot be regarded as the chief, much less the sole, basis of the philosophical sciences. If psychology be regarded as primarily the systematic study of *conscious and purposive individuals,* it is the chief basis of philosophy and the humanistic sciences. It is the latter sort of psychology which principally interests us and a good part of the present volume might be classified as a psychology of conscious individuality.

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[10] A good deal of valuable work has been done in America in "Social Psychology" and "Psychology of Religion."

CHAPTER XXIII

THE NATURE OF THE SELF [1]

In what sense, if any, can we say that the empirical individual or personality implies a unique principle, which is one and continuous throughout the diversities and succession of the individual's empirical history? This is the vexatious problem of personal identity. It is the most central and weighty of all metaphysical problems, inasmuch as upon its solution, however tentative, depends one's attitude towards all metaphysical and axiological questions—towards the problems of human freedom, of the value and destiny of the individual, of the true ends and values of the social order and of education and culture, and finally of the meaning and value of the cosmical order. Hence the investigation of the problem of personal identity is a matter of the utmost practical consequences. For, as Bishop Berkeley said, "Whatever the world thinks, he who hath not much meditated upon God, the human mind, and the *summum bonum,* may possibly make a thriving earthworm, but will most indubitably make a sorry patriot and a sorry statesman." To which I add that, from our empirical standpoint, meditation upon the human mind is the prerequisite of meditation upon God and the *summum bonum;* or, *if* you prefer abstruse language, upon true values and their cosmic status.

Moral judgment and action, the administration of society and all education proceed upon the covert assumption that the normal individual is a self-active and responsible social unit. But this assumption is challenged by biologists, psychologists and sociologists, as well as by many philosophers, on the ground that it is a naïve popular misconception which is dissipated into the void by the analysis of human personality. The latter becomes, under the scientific searchlight, an ever shifting mosaic of biological impul-

[1] This chapter and Chapter 28 are expansions of an article "The Psychological Self and the Actual Personality," in *The Philosophical Review,* Vol. xiv, No. 6. November 1905, pp. 669–683.

sions and appetites, of neuro-muscular habit automatisms intermittently lighted up by sporadic flashes of sentience, of sensations, feelings and emotions, and of images and ideas, which are all by-products of nerve processes and are illusorily believed to be efficient factors in the life of the self. From this standpoint personality is the changing and passive product of the interaction between the physical organism and its environment. I have already argued at sufficient length against the reduction of the mind to a physical organism or machine. It now remains to inquire what grounds there are for the belief in a mental or spiritual principle of personal identity.

The belief in question is challenged chiefly on two kinds of grounds: (1) a rigorous inspection of the facts of consciousness does not bring to light any datum corresponding to the so-called mental self; (2) the many facts of both normal and abnormal character support the view that the conscious life of the self consists of mere bubbles and surface currents which are produced by physiological processes in the subterranean depths of the unconscious. In the present and following chapters I shall examine in order the above two types of consideration.

The naturalistic rejecter of the self argues as follows: Psychological analysis shows the conscious self to be complex and ever changing. The analyst never succeeds in tracking that mysterious entity, the self-identical self, to its lair. It forever escapes him, and he is therefore ever disposed to regard it as nonexistent. What he finds in consciousness is an ever changing variety of mental elements living in changing relations. The mental elements may be reduced to two fundamental types—sensations or sensa (Hume's "Sense Impressions") which are the raw materials of knowledge; and feeling impulses or affections, which are the raw materials of emotions, sentiments and acts of will. Each element has its own unique quality; and the elements vary in intensity or degree and in duration. Sensations vary in clearness and distinctness; affections vary in degrees of pleasantness and unpleasantness. In the actual mental life the sensory elements of consciousness are fused together to form percepts, and, by retention and reproduction, images. From percepts and images arise, by repeated association and fusion, the vaguer and more generic images called general ideas or concepts. The affective mental elements are fused together into more complicated and abstract

forms, thus giving rise to emotional disposition or sentiments from which arise volitions. In the actual mental life, of course, the sensational and affective elements are interwoven at every stage in their development; they are distinguishable but not separable aspects of the organism's awareness.

The feeling of selfhood is a fusion of internal sensations from the vital organs—chiefly from the visceral, thoracic and cephalic organs—sensations of respiration, pulse beat, massive sensations in the stomach, strain of the eye muscles and other head muscles; all accompanied by feelings of pleasantness and unpleasantness. William James put the matter neatly when he said, "The 'I think' which Kant said must be able to accompany all my objects is the 'I breathe' which actually does accompany them. . . . Breath, which was ever the original of 'spirit,' breath moving outward between the glottis and the nostrils, is, I am persuaded, the essence out of which philosophers have constructed the entity known to them as consciousness." [2] But James assumes philosophers able to construct entities. To take such observations as abolishing the validity in the belief in a self one ought to explain how the breath comes to say "I breathe," and thus to construct a theory of itself. For the breath suddenly to catch its breath and say *Respiro ergo sum,* if there is really no thinking self, is no whit less mysterious than for a philosopher to say, *Cogito ergo sum.* In fact it is the same proposition—in other words breath or blood or visceral pressure or head strain suddenly turning from a physicochemical process into a philosopher is a stupendous miracle. Verily, psychologists are facile at cheating themselves and the public with words.

In a similar fashion deliberate volition is resolved into a blindly determined complex or fusion of elemental instincts, emotions and desires, with percepts and images arising in the same fashion. The process of willing, even in the case of prolonged deliberation and so-called rational choice, is resolved into a complex feeling of instability or uneasiness due to the conflict of the emotional dispositions. When this conflict issues finally in the decision, "I will do this because it is my duty," this conscious decision is but the illusory by-product of the final stage of the emotional conflict. It is not explained why an emotional complex

[2] William James' *Essays in Radical Empiricism,* p. 37.

should thus give rise miraculously to the conscious illusion "I will."

The rejection of the self, because of failure to find it in an introspective analysis of consciousness, has never been more clearly or forcibly put than by Hume. "I desire those philosophers who pretend that we have an idea of the substance of our minds to point out the impression that produces it, and tell distinctly after what manner that impression operates, and from what object it is derived." [3] "There are some philosophers who imagine we are at every moment intimately conscious of what we call our self: that we feel its existence, and its continuance in existence: and are certain, beyond the evidence of a demonstration, both of its perfect identity and simplicity. For my part, when I enter most intimately into what I call myself, I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never catch myself at any time without a perception and can never observe anything but the perception. But, setting aside some metaphysicians of this kind, I may venture to affirm of the rest of mankind that they are nothing but a bundle or collection of different perceptions, which succeed each other with an inconceivable rapidity, and are in a perpetual flux and movement." [4] Psychology has made much progress since Hume's day: nevertheless the above passages state clearly what must, by the nature of the case, be the result of the attempt to reduce the "passing moment" in the living process of consciousness to particular elements and their connections. Mental life is, when regarded as the empirical continuum of selfhood, indeed in "perpetual flux and movement"; and the attempt to analyze a cross-section of it is rendered successful chiefly through the power of retrospection or memory. We cannot *be* a certain phase of conscious process and pulverize it at the same instant. When we introspectively examine and analyze mental processes we are not catching the self in the full tide of its life. Atomistic analysis of the structure of consciousness necessarily involves neglect of the immediately experienced and fluid continuity of consciousness. For this analysis transforms the actual unity into artificial and inert elements. This type of psychological analysis does not find

[3] Hume, *Treatise of Human Nature*, Book i, Part iv, Section 5.
[4] *Ibid.* Book i, Part iv, Section 6.

the self, since it so completely transforms the actual movement of consciousness that there is no place for a self in its artificial mosaic of elements. The real self cannot be one particular element among the other elements. It cannot be a mere constituent of itself. The whole cannot be a part of itself. Every attempt to objectify it in this fashion must fail. One can thus obtain, at best, only a dead remnant of the self, *an object-me never the subject I.* Every step in the analysis of consciousness into a complex of elements presupposes, however, the self to which the elements belong and which performs the analysis; but which itself eludes envisagement as a particular psychical element. The self is the seer which, unseen, sees. *Psychological analysis is a post-mortem affair, but the self is always present at the inquest.* It is at once corpse, coroner and jury. Naturally, then, the self is not found in this way. What are found are fragments of the actual ego, torn from their dynamic context in the process of living experience; phases or moments in the life of the real ego precipitated from the living pulse of consciousness.

When I become self-conscious, for example, at the present moment and analyze this pulse of consciousness, after the manner of atomistic psychology, I find a vague mass of organic sensations and sensations from my clothes as the general background, a visual perception of part of my body filled out by an image of parts of my body which I do not see, the kinæsthetic sensations involved in writing, a feeling of tension in my forehead, and the idea of the personal pronoun "I." What is left out in this analysis is the *immediate feeling of selfhood,* without which I could not recognize any of these elements as belonging to me. The organic sensations are not conscious of themselves as being the self. Not even the strain sensations in the head or the idea of the personal pronoun "I" can be said to be the self which recognizes these elements as constituents of its momentary complex process. This is the very principle which sustains, directs, and renders intelligible all analysis of conscious processes. It is the immediate feeling of selfhood.

It has been asserted that it is a paradoxical and contradictory assumption to say that a subject can be its own object, a self its own not-self. The self, in so-called introspection, must split up into two distinct things, the self observing and the self observed. But the observed self is no longer self, and thus there is found in

experience no self at all, but only a series of feelings. If one admit the force of this objection, then so-called introspection can consist only in one conscious element knowing another conscious element. Consciousness is thus resolved into a series of elements, any one of which may know any other. An element of consciousness *A* may know another element *B*, and in turn be known as knowing *B* by a third element *C*, and so forth. The only unity is what William James has called the "unity of the passing thought." He says that we need no other knower than this.[5] But to say that any element in a series knows another element in that series is to attribute to the element which knows the other element *precisely the unity of consciousness which is meant by a psychical self.* The unity of the passing thought carries in itself the very unity of the subject, which it is supposed empirically to supplant. *A series of feelings which is aware of itself as a series is just what I mean by a self.*

It is no doubt difficult to observe introspectively one's own state of mind, when one is engrossed in an object or overmastered by a strong emotion. Nevertheless one is able to recognize at least that these experiences are one's own, and, to this extent, be conscious of being conscious. Immediately one feels one's experiences as one's own, immediately one becomes aware of the primal fact of self-feeling, one becomes self-conscious.

I have said that introspection is almost entirely retrospection. But, then, retrospection is introspection; the memory-content is one's own. To catch the fleeing moment on the wing is to arrest its flight; but one recognizes the arrested moment as one's own and can describe it as such. There are great differences of individual capacity for self-observation. The average man is not usually introspective, and many psychologists are not in this respect gifted above the average. The power of introspection, however, can be cultivated. The ability to describe their own mental processes seems to belong peculiarly to mystics and ecstatics, who have given us very vivid descriptions of their own

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[5] James, *Principles of Psychology*, Vol. I, pp. 338 ff. No student should fail to study closely this, the greatest work of descriptive psychology in the English language; especially Chapter 9, "The Stream of Thought," and Chapter 10, "The Consciousness of Self." Since I shall frequently criticize James I wish to say now that I owe as much to him as to any other modern writer.

exalted conditions.[6] Such are also psychasthenics like Maine de Biran and Amiel. There are many degrees of self-observation. In general, self-observation is clearest when it is involuntary. The deliberate effort to observe one's own state of consciousness usually results in partial failure. And of course accuracy in the description thereof depends on accuracy of memory for subjective conditions. Here too, there are striking individual differences.

One may call it a paradox, and doubtless it is one of the irreducible paradoxes of experience, that one can in the same instant and in the same psychical complex be subject and object, *I* and *me*. It is none the less a fact. Instead of allowing misconceptions of the self drawn from physical metaphors to blind one to the fact, one who wishes to do justice to the uniqueness of selves in the system of experience will begin with this fact. Consciousness is much more complex, variable, and elusive in its contents and movements than any kind of physical object. Consequently, self-observation is more difficult than observation of physical things. This is not a sufficient reason for ignoring or denying the fact that a self can know itself immediately, or for asserting that the self which knows is in no degree identical with the self which is known. They are distinct but not separate.

While the self has immediate self-knowledge in feeling it is true that the self that is known cannot be the whole self to which *belong* the feelings, thoughts and will attributes. The self as known is *distinct* from the self as knower and is but a fragmentary expression of the whole self. The self knows directly but a passing phase of itself. On the basis of introspection alone one would not be justified in asserting that all processes of conscious life must belong to one unitary self or person which is their bearer or substrate. Not only do sensationalistic "impressionists," such as Hume, Mach and a crowd of others, deny the need of assuming a real ego; but even Wundt and many other psychologists reject the notion of a soul-substance or substrate of conscious life in favor of the *actuality* theory. According to the latter, the self is simply the actuality of conscious process. But does not this view logically

[6] *Cf.* the *Confessions* of St. Augustine, Rousseau's *Autobiography*, Goethe's *Wahrheit und Dichtung*, and the quotations from the writings of religious mystics and ecstatics in James' *The Varieties of Religious Experience* and in Evelyn Underhill's *Mysticism*. See also K. Oesterreich, *Die Phänomenologie des Ich in ihren Grundproblemen*, Band I, Leipzig, 1910, especially Chap. 9, "*Das Problem der Selbstwahrnehumung.*"

reduce the unity of the self to the passing moment? What becomes of all the psychical capacities that are not functioning in the present passing moment of the individual's consciousness? Do these capacities persist simply as the modifications of nerve structures? I shall discuss the latter question more fully in connection with the mind-body problem. Here I am concerned with the more general question—have we good grounds for *inferring,* from the facts of individual experience, that there may be a continuing psychical or psychophysical entity—not a passive, blocklike substance (the *travesty* of the "soul" or "self" doctrine set up by its critics) but the enduring active principle or living substrate of the passing moments of feelings, thoughts, choices, volitions? I think we have a good right to do so. I am so old-fashioned that I believe in the soul and am not frightened by the word "substrate." My reasons for the belief are as follows: (1) The indubitable facts of the consciousness of continuing identity, of the unity and continuity of the individual's experience. (2) The sense of initiative and responsibility. (3) The results of the activities of persons in building up, altering and rebuilding the structures of human civilization—material, social, scientific.

1. (*a*) The experiential unity of conscious life at every moment is a fact, though one's attention may not be directed to it; but, just as *now* I am not attending to some constituents of my present experience which are yet recognized to be parts of it as soon as I attend to them, so I cannot escape the recognition that *all* that I experience *now* constitutes *one pulse of my experience.* So far from the complexity, or even the distractedness, of my present pulse being evidence against this unity, they are evidences for it. I may say that I cannot completely harmonize my present conflicting attitudes of mind but, in so doing, I recognize that they are all mine. I may say that I am distracted by the complexity and incompatibilities of my present ideas and inferences but, in so doing, I imply that I own them all. Even an extremely disordered self, a divided self, a so-called multiple or alternating "personality," implies the unity of the self amidst all its aberrations.

(*b*) The *continuity* of the self, the sense of continuous self-identity, involves the persistence of something that is continuously one through change. I remember that I was present last night at a reception and that I said and heard such and such things. I

can compare the differences between my attitudes then and now. I can discuss with my friend what was said and done. The events of last night are past. They do not exist in the present, but they are psychically real in the sense that they did exist and that they are remembered. Memory is a reality, and it does not consist in the complete re-creation of what then happened. This cannot be, for my present is *not* and cannot be the same as my past state. My ability to recall, identify and date, what then happened, implies recognition of *similarity-in-difference.* How could I remember what has ceased to be as an actual experience, how could I ever reproduce in a different temporal-spatial setting what I experienced then, unless I were in some manner the same self? If I were nothing but the passing moment how could I compare the past and the future with the present passing moment? For expectation, no less than memory, involves the actual continuity of the self. If I were nothing but a passing thought I could never recognize the passage of moments nor find any meaning in saying that I am only a passing thought.

Mere association of ideas will not account for memory. My present ideas of last night's events are new events. They are not contiguous with the latter in space and time. My recollections of last night are as much new events in my mental history as are my perceptual recognitions of old family scenes into which I enter anew when I return to my boyhood home. There can be no memory which is not based on the *recognition of similarity.* There can be no recognition of similarity without recognition of *difference* in experiences. For similarity is not partial identity of existence. Recognition of similarity presupposes recognition of difference or diversity. In turn, in order to recognize diversity of existence, I must have lived through these diversities and have noted their similarities through their differences, or *vice versa.* To attempt to explain memory by the passive association of ideas is to presuppose, in these associations, precisely what is to be explained by them. It is to beg the whole question of personal identity.

What I have said in regard to a simple case of memory applies, with even more force, to the persistence and activation of powers or capacities developed in the past but not active now. Expectant and purposive attitudes are grounded on memory and habit, interwoven with native and modified desire and interest. These factors,

in turn, imply the continuity of *psychophysical dispositions.* The actual self is a more or less organized complex of psychophysical dispositions. My ego includes now a considerable number of attitudes or incipient acts that are the results of native dispositions modified by the interaction of my original capacities with environmental conditions. My ego is the living record of my history since conception. Many of these dispositions are not present in my clear consciousness; but they are not inert or inactive. They are subconscious factors which may come into the field of clear consciousness at any moment. The ego is a complex unity which involves many subconscious factors.[7] If we take the word "thinks" in a sufficiently broad sense to include all activities of a mind, a self, then Descartes was right in saying "The soul always thinks." A lifelong study of dream life has convinced me that the activity of the mind never ceases, even in the deepest sleep. Subconsciousness, in natural or artificial sleep, is *sub-attentive* consciousness.

Thus far, I have argued for the self as the unitary and continuous ground, or owner, which is identical with the continuous complex and varying attitudes of the mind, when these are taken *as a whole.* I do not mean that the real self is something which *lies* behind or underneath the actual processes of conscious life, like the machine which projects the moving picture, or like a room which contains a variety of articles. I do mean that the process factors of selfhood have no reality apart from the whole and continuing ego, and, equally, that the ego has no reality apart from the continuously and varyingly active factors which are the ego in its concreteness. The actuality theory of the ego is the true theory, if it be admitted that its actuality includes many persistent factors that may be at any moment only virtually conscious. The ego is the living and pulsating unity, not the mechanical sum, of its dynamic elements.

2. The hypothesis that the self or ego is a real cause is the most natural explanation of the sense of initiative and responsibility, the feeling of self-determination, and of the whole life of seeking, of choice and purposiveness; which characterize the normal individual. It is sheer dogmatism, not openminded empiricism, to say either that the only efficient factors in our world are purely mechanical and physical; or that, since all change must

[7] For further discussion *Cf.* Chaps. 25, 26 and 27.

be the effect solely of the rearrangement of spatial elements, therefore the ego cannot be a cause. The kind of change which occurs when a human self makes a critical choice differs fundamentally from the kind of change which occurs when the breeze scatters a pile of ashes. To say that a self is a cause is not to imply that it acts capriciously, but only that the self is an original or unique determining factor in a process that is, therefore, unique in kind.

3. That selves are unitary and continuous realities and are unique causal factors is the most reasonable explanation of the whole work of human civilization. If we consider the development and the mutations of cultures, the beginnings, growth and transformation of cultures, of social and political systems, of languages, literatures and arts, of morals and religion and of science and philosophy, we cannot really account for these novel and vigorous eruptions in the order of physical nature except as effects of the striving of real selves for self-maintenance, self-expression, self-development.

The self, treated as an object given for inspection, appears to take on a spatial and bodily character, and the easiest way to explain its contents is in terms of bodily sensations and affections with their conditioning nerve-processes. In this respect analytical psychology carries forward, in a more rigorous fashion, a procedure which begins in common-sense thinking. The consideration of the contents of past experience by one innocent of psychological training involves the quasi-materialization of the self. For the item of past experience is looked upon as a fixed and persistently existing fact. Past ideas are regarded as packed away somehow in the storeroom of the mind. This assumption that ideas are like physical things or elements is the fundamental error of associationist psychology. Now, in so far as the self is identified with a collection of past and present sensations, affections and images, or "ideas" it is regarded as a quasi-material thing, a "bundle of impressions." The atomistic psychology of to-day does not regard the contents of conscious as static entities. It does, however, regard them as dependent elements, whose permanent substructures or bases are nerve-paths. Its position in regard to the self is a translation of Hume's psychological atomism into terms of neural structure and activity. Hume's conclusion in regard to the nonexistence of the self was a logical deduction from his starting point. But he looked for the self in the wrong place and

in the wrong way. Contemporary psychologists who, not finding the self as a permanent core or center of sensations and images, assert that it does not exist, except as a system of association paths among the cortical neurones, are, like Hume, looking for the self in the wrong way and consequently do not find it in the right place.

The actual self lives in *attitudes,* or *active* and appreciative *relations* to objects. It is an active principle that thinks and thus affirms or denies in logical judgment; that chooses and thus selects and avoids in willing; that feels and thus loves and hates, joys and sorrows. Alike in judging, in doing, and in feeling, the self functions as a *dynamic center, an active source of judgment, valuation* and *purpose.* It is not a changeless substance which underlies the concrete and changing contents of the empirical life, but a living active unity which has and knows these contents as its own. "States of consciousness," so-called, are not directly known as contents isolated from the relation of the self to its world, and *they do not exist as such.* Sensations, percepts, images, concepts, interposed by the philosopher or psychologist between the self and its world of objects, are artificial products, results of retrospective analysis obtained by abstraction from the actual relations between the self and its world. *What is directly known is a psychophysical individual, in active and passive relations with a world of objects;* in other words the self as knower perceiving concrete things, thinking concrete objects and their relations; the self as doer and sufferer, feeling, valuing, and striving to alter objects or its own relations to them. Of course, I include under "objects" here the field of other selves.

In the actual movement of life the self is as immediate and real as the objects of its judgment, valuation and action. I have maintained that the immediate feeling of selfhood is involved in all analysis of consciousness, since consciousness is always individuated. The *"concept" of the self,* in distinction from the immediate feeling thereof, must be framed in the light of all the aspects and relationships of the individual. I wish, in conclusion, to insist that the concept of the self is at least as necessary a factor in thinking out the meaning of experience in its totality as is the concept of the world regarded as the totality of all physical processes and their relations.

The fact that the self is a complex does not invalidate either its unity or its reality. If it is a specific kind of complex, a com-

plex which functions as a whole in knowing and willing, in organizing its experiences and realizing values, it is a unique kind of reality. Any datum which shows, upon the closest inspection, *specificity of function* must be admitted to be an elemental constituent of reality. Such data are minds.

Again, the fact that a self or mind appears and operates only in association with a certain physicochemical complex, which is therefore the condition of its functioning, in no way destroys its unique reality. Let us admit that a specific chemical combination of physical elements is one indispensable condition (a scientific cause) of the self's functioning. Then the whole psychophysical self is in part the result of mechanical processes, but it is not merely mechanical; and a world in which selves appear and operate is not a purely mechanical world. For it is an elemental fact that the specific mentality of the self is correlated with a correspondingly specific physicochemical complex. Selves in their wholeness are irreducible factors in a process which is not at all the same kind of process that would have occurred had there been no selves.

Any attempt to formulate the nature and meaning of the world process which leaves the unique mentality of selfhood out of account omits the most significant datum of experience. To say that selves have originated as a result merely of certain very complex physical processes is to beg the question. The "real" world process is one which has taken the direction of personalization, which has resulted in beings that are *prima facie* agents in the further modification of the process itself. Therefore, the world process is inexpugnably qualified by, and must be read in the light of, the emergence and energizing in it of *intelligent value-creating agents.*

Summing up this discussion, a self is an organized complex of physiological energies operating through a determinate mechanism and illuminated by a sentient consciousness which rises, through its functions of recognitive and selective memory, selective analysis and synthesis of elements of its experience, to the point of exercising a considerable measure of control in the valuation, direction, and organization of its own native tendencies as well as of its environment. The physiological energies and the sensory-impulsive materials of valuation and choice are the complex resultants of heredity and variation in the organism. Biologically, the self is a center of individuation for congenital tendencies or disposi-

tions which run back into the remote and undeciphered past of the race, a meeting point wherein these converging tendencies give rise to fresh variations.[8] But, without the selective analytic and synthetic principle revealed in conscious activity, the biological individual would not be a true self.

Culturally, the self is the product of the reaction of the conscious organism above described to the environmental factors of civilization—to language, social and political systems, manners, arts and sciences, and religions. The ordinary individual is for the most part passive in his reactions. He modifies inherited culture systems only in slight degree. The superordinary individual, the leader, the thinker, the genius, recreates these social culture systems. The self is thus, for the most part, the product of his somatic and especially his cerebral inheritance, plus his actual physical environment, plus his social heritage and atmosphere. The modicum of originality and self-determination in most selves is small. But the synthetic spiritual principle is there and operates, and in some few persons it rises to signal creativity. Even the humblest person has his own unique flavor of personality. We are not here discussing the problem of freedom of the will, but it is evident that such freedom is limited in range and rather rare in its expression, if it takes place at all. It is at best a power of choice that can be exercised only among a very limited number of determinate possibilities, and it is not obvious that, thus far, our theory of the self logically involves the admission of any indeterminism in the self. It may be that the activities and possibilities of the spiritual principle are just as *specifically determined* by its "original nature," plus physical and social milieus, as are the mechanical activities of the body.

APPENDIX

MR. BRADLEY'S CRITICISM OF THE SELF

In his chapters on "The Meanings of Self," and "The Reality of Self" in *Appearance and Reality* (Chapters 9 and 10), Mr. Bradley, after an acute discussion of the various senses of the term "self," concludes that the foundation of the self is the inner and changing core of feeling resting mainly on what is called Cœnesthesia; but this

[8] The biological elements of the self may be called Mendelian unit-characters.

core of feeling is dependent on the not-self and the boundaries between self-feeling and the not-self are constantly shifting. There are, however, he thinks, elements in the self which never are not-self; "elements in the central self-core which are never made objects, and which practically cannot be" (p. 23 of the first edition). "Selves exist and are identical in some sense" (p. 104); the unity of feeling never disappears (p. 110). We may reflect upon the unity of feeling and say that the self as self and as not-self all in one is our object, but the actual subject is never brought before itself as an object and hence the subject as it is can never be perceived (p. 111). The so-called experience of self-activity, if taken to be a revelation of the nature of the self, is fraudulent (p. 116). The monadic theory of the self is useless, since, if we admit that the monadic selves are in relation their independent reality is ruined; and if we deny that they are in relations and at the same time assert that there is more than one monad we have contradicted ourselves, since even plurality and separateness are relations. Moreover, without relations the monad is useless, since it is in no relation to the actual process of self-feeling; if it is in relation to the latter it is no longer a monad. Mr. Bradley concludes that the self, although the highest form of experience which we have, is not a true form since it gives us only appearances; like all other forms of finite existence it carries us away into a maze of terms and relations (pp. 119, 120).

Mr. Bradley is right in his contentions—(1) that the whole self can never be object for itself and that there is always an unanalyzable remainder of self-feeling; (2) that the self exists only in relations; (3) that the theory of the self as a changeless self-identical monad is a fictitious monster; (4) that the notion of the self is a reflective construction. But, when Mr. Bradley substitutes for the self, or better for a community of selves, the notion of an absolutely harmonious timeless experience which no experient has, as the Absolute, he is foisting upon us a more fictitious monster. Experience is a construct made by abstraction from experients. What can a perfect all-inclusive, timeless experience mean? I cannot see that the reality of my selfhood is invalidated by my inability ever to make my whole self an object of perception, any more than I can see that my inability to perceive now more than a part of my study and a fragment of the street makes the external world unreal. As to activity I can find no item of experience that more successfully resists a dissolving analysis than the activity of purposive thinking. Feelings of muscular effort may be resoluble into peripheral sensations, but not purposive thinking. Moreover, just as the reality of physical energy is legitimately inferred from physical work done, so the reality of mental energy

is legitimately inferred from mental work done. If Mr. Bradley is not a self-active thinker how are we to account for his very important works? For me the self is a dynamic reality living in relations. Personal identity is variable both in extent and intent, but that personal identity exists at all evidences the active reality of a self which is continuous and is a power of synthesis realizing itself in the actual history of the empirical "me."

CHAPTER XXIV

CONSCIOUSNESS

Strictly speaking, consciousness cannot be defined, since it is an ultimate or irreducible quality of experience, as belonging to individuals, and hence, cannot be stated in terms of anything other than itself. In order to know consciousness one must be capable of self-consciousness, just as in order to know light or color one must be able to reflect upon what one sees as well as to see. It is possible, however, to describe consciousness quite accurately by certain notes or marks.

In discussing the nature of consciousness it must be borne in mind that there is no such thing as consciousness in general. Consciousness is the property of an individual organism. Moreover, to be conscious is to experience something. This chapter might have been entitled "the nature of experience." I use the terms consciousness and experience as equivalent. I proceed to state the notes of consciousness or experience.

1. Consciousness is awareness and always of something more or less determinate. 2. In man, consciousness includes the possibility of being aware of awareness—*self-consciousness.* 3. Consciousness has degrees of clearness or vividness. It varies in intensity. 4. It has duration or temporal order. 5. It has degrees of expansiveness or inclusiveness. 6. It includes feelings or affects which are reactions of the subject to stimuli. Feeling impulses express what the self is dynamically. To be a self is primarily to feel and act. 7. Thus consciousness involves interest, desire, valuation, preference and choice. 8. Thus consciousness is dynamic. The nature of the conscious self, as the striving towards harmony and continuity of life, is constituted by the organization, into trains of purposive activity, of its central and abiding *interests, values* or *selective preferences.*

I. The Unity of Consciousness

The conscious self is a complex unity, a system of systems, a moving complex made up of many lesser complexes or clusters of impulses, images, ideas and purposes. A self always consists of many partial selves, and the degree in which these partial selves are integrated into one harmonious whole varies. Actually every self is a quasi-society, more or less harmonious, of partial selves. Selves consist of partial selves and the individual self consists of the total relations between bits of selfhood. With the details of this problem we shall deal more fully later. What sort of complex unity is then a conscious self? It is a dynamic unity, one which has its being only in process, in unifying. But so is a material machine as a going concern. Still more emphatically so is a biological organism. What are the differences between machines, organisms and conscious selves?

a. The unity of a machine in operation consists of the external action upon one another of parts juxtaposed in space. It is true that, through friction, the actions of the parts modify one another. The wearing down by friction consists in the disintegration of parts into looser aggregates of particles that were only in lesser degree external to one another than the parts which they made up. There are governing parts in a mechanical system, springs in a watch, for instance, but their action, too, is relatively external to one another.

b. In a living organism we have a type of system or complex intermediate between a machine and a conscious self. The life of the organism seems to pulsate through all the parts and each part to contribute, by its functioning, to the life of the whole. The whole pervades all the parts and each part exists as such only in the whole. The living organism cannot be assembled and taken apart like an automobile. Each organ is a complex which, in turn, is an element in the organic complex of the whole. So it has been customary to describe the unity of self-conscious individuality as an *organic system.* But the analogy is not complete. Parts and by-products of the living organism, such as nails, mucus, hair, are constantly being transformed into more or less mechanical aggregates and cast off. Single organs may be removed without apparently seriously affecting the life of the whole. The organism is a self-repairing machine, and where it cannot restore a lost part

another part may take over the function of the lost organ. On the other hand, in the conscious self the unity completely *interpenetrates* the parts, and the parts are not parts in a mechanical sense, since they interpenetrate one another in a transpatial system. There are no elements in consciousness except as distinguishable aspects of the single unitary pulse of individual experience. Thus the uniquely systematic character of consciousness is revealed as completely pervading and living in all its aspects. Whatever may be the degree in which consciousness may be continuous in time at any moment, the unity of consciousness is one and indefeasible, a system living in and through its elementary and partial systems. Thus a mental or spiritual unifying process is *sui generis;* all other forms of unity and individuality are more or less external in comparison with it. Consciousness is both synthetic and analytic. In any single phase or moment of its life, one or another of its features may predominate, but never to the total exclusion of the others.

II. Consciousness and Its Objects

In book I we considered the relation between thought and its objects. So I shall only briefly indicate it here. The objects of awareness may be: sense qualities in the physical world; one's own feelings and practical ends; or abstract principles as in logic, mathematics, metaphysics. In every case awareness is determinate. It is of something specific.

Our further conception of consciousness is to be reached in terms of its relationships. I have said that consciousness is a unique property of experience as individuated. In the broadest sense of this very vague term "experience," all content of experience is present to conscious subjects and, hence, involves consciousness. My experience of the pencil, the paper, or the desk, is at least a fact of my consciousness, whatever else it may be. But the pencil, the paper, or the desk, are not in my consciousness in the same sense in which they are in actual space. They are present *to* my consciousness in that relation which constitutes them objects of my individual awareness. To have identified this relation of awareness with the general concept of immediate existence, and to have argued from this identification that, since everything known is present to a consciousness, therefore everything existent

is content or matter of consciousness, has been the fallacy of psychological idealism. The habit of speaking of everything that one is conscious of as "content" has led to the fallacious notion of consciousness as a nonspatial container of spatial things. Follow this notion to its logical conclusion and everything disappears into one's head, and one's head in turn disappears into a dimensionless point.

The desk exists for my consciousness now. This does not mean that the actual desk is nothing but a state of my being conscious. It does mean that, thus far, my being conscious depends on a relation of my ego to the desk, which I believe to exist also when I am not conscious of it. Thus far, my consciousness is *relational;* it is the end term in a relation.[1] Thus far, to be an object of consciousness is to be in the relation of meaning.[2] In order that there may be consciousness there must be qualities and relations of objects, which may also exist independent of a subject's consciousness. But consciousness is a very unique or specific kind of end term in a relation. A single pulse of consciousness is dependent, for its actual constitution, on the awareness of the actual objects and relations which constitute its data. When I am conscious of the desk, my concrete consciousness depends on the relation of the desk to my ego. Consciousness is always a function of a self, and a self exists only in relation, just as an object in space, for instance, exists in relation to another spatial object. A self is a focalizing center of relationships. Whether I am conscious of the spatial relations of objects, such as that of the desk to the paper, or of social relations such as that of myself to my son, or of logical relations such as equality, inequality, difference, identity, contradiction, consistency; in every case there are *three* factors; namely (1) the specific objects or object of consciousness, which may be (*a*) particular facts either psychical or physical or (*b*) relations between particular facts such as causal, class and quantitative relations, or psychical values; (2) the unique relation in which the specific objects of consciousness stand to the individual self who is conscious in these specific relations; and (3) the attitude of the self which can know itself in these relations. And it makes no essential difference in the situation whether the objects

[1] F. J. E. Woodbridge, *The Journal of Philosophy, Psychology, and Scientific Methods,* Vol. ii, pp. 119–127.
[2] *Ibid.*

of one's being conscious are physical objects or processes of one's own consciousness. In both cases the fundamental relation is the same—consciousness is the attitudinal relation of awareness of an ego to its objects which, therefore, need not be conscious.[3] This relation is not a causal relation nor one of reciprocal dependence of existence, hence the object may exist independent of the awareness by the ego.

If there were nothing to be conscious of, I should not be conscious. The converse proposition is not true. To convert "all consciousness is of objects and their relations" into "all objects and relations exist only when they are *for* consciousness" is to commit an elementary logical fallacy.

There is a sense in which consciousness may be a neutral continuum. When one is not reflecting upon what it means to have an experience, or upon the relation between himself as agent of experience and the surrounding world, his consciousness is a continuum which seems to consist just of a mosaic of sense-data occupying a certain spatial field and moving through a certain temporal flux. A moment ago I sat looking out of my study window. My then consciousness, as I now recall it, consisted simply of a visual, auditory, tactual and olfactory field or *totum sensibile.* It contained the awareness of the window, fragments of the room, a bit of the street with vehicles passing along it, the raucous toots of motor horns, the noises of their engines and wheels, bits of the houses on the opposite side of the street, the odors of the street in spring, the incense ascending from my pipe. My consciousness seemed identical with the aggregate of objects in its field. It seemed nothing more than the compresence of this multitude of varied sensory objects. This is the realm of so-called "pure" or "neutral" experience. In this relation consciousness appears to add nothing to its objective field of contents but the colorless compresence of its parts to my awareness. "Pure experience" is just the limiting case of a passive consciousness of all sorts of things in a spatio-temporal continuum. Consciousness seems to add nothing to, and to subtract nothing from, the things. Its goings and its comings appear to be of no moment to them. It seems to be an indefinitely extensible and flexible, nonresisting,

[3] It follows that a feeling or thought is never conscious of itself. Self-consciousness is the awareness by the thinking self of some part of it own moving content.

colorless and translucent medium, through which all sorts of things pass and which changes with the passing of its contents. So far consciousness seems to be like a bit of pure space.

But let me hear a scream of agony, feel a sudden pain, see a long lost friend crossing the street, or think of a pressing practical problem, and the whole situation is immediately altered. I straightway become a conscious agent, doer, sufferer, planner, thinker. The lights and shadows of my conscious content change. I alter the contents and pattern of my presentational continuum. In short I become actual as an attentive, feeling, conational self.

If consciousness existed in general, apart from individuated centers, or if it passed through and around these as the daylight through and around objects, it might never seem more than a neutral continuum. But consciousness never really exists as a neutral and impersonal vessel or continuum. There is no such *entity* as consciousness. It is always a property of individual selves, who are at once, and all the time, both cognitive experients and affectional agents. As experients these agents are recipients of sensory presentations or percepts; as active or attentive selves they selectively analyze and reconstruct their presentations; and as affectional they desire, value, and strive voluntarily.

I agree with James Ward that there are three distinct components of the psychical process—attention, feeling, and objects or presentations—constituting always one concrete mental process. A mind is an individuated experient which lives in two kinds of attitudes—(1) receptive and (2) active. In the receptive attitude the attentive consciousness is incited by external stimuli; that is, it is nonvoluntarily determined. In the active attitude attentive consciousness is determined by centrally originated feelings of which volition is a complex or highly elaborated form. Of course, these attitudes interplay in the most varied manner. Attention is a name for the cognitive activity of the conscious individual, by virtue of which, whether the activity be directed towards an object, through the self's internally initiated desires and valuations, or through the arousing impact of environmental stimuli, the presentation (percept) or representation (image and concept) of the object is increased in intensity and clearness. Attention is a specific form of self-activity whose differentia consists in the fact that by it cognition is enhanced and clarified. Attentive cognition, desire, and volition are all species of the genus self-activity.

James argued that experience is primarily "pure" or "neutral." [4] This pure experience is the stuff of which everything in the world is composed. Referring to the common distinction made between the physical and the psychical as two qualitatively different fields, James says, "Experience has no such inner duplicity; and the separation of it into consciousness and its content comes not by way of subtraction but by way of addition." [5] "The same bit of pure experience is viewed as a physical thing or a conscious process according to the relations in which it is taken. My pencil as a part of the system of external space relations is a thing; as a part of the continuous flow of my imagery it is a conscious content. Personal histories are processes of change in time." [6] "A 'mind' or 'personal consciousness' is the name of a series of experiences run together by certain definite transitions, and an objective reality is a series of similar experiences knit by different transitions." [7] Consciousness is thus a function of certain groupings of this pure experience. This function is simply the taking of certain bits of experience in certain relations.

I agree with James to the extent that consciousness is a function of the individual organism. And a conscious individual is a being-in-relation. It is correct to say that consciousness means concrete facts of experience taken in certain relations, with specific transitions, etc. But this is not the whole story. A thing-experience is not precisely the same thing-experience in different relations. Relations are essential elements in the texture of thing-experiences.

Consciousness is not an end term in a relation in the same sense in which a desk or an algebraic symbol is an end term, nor is consciousness a continuum like space. Consciousness is a function of individual centers of cognitive-volitional relationship and of related elements of experience; which stand, respectively, in the relation of being conscious of objects, and of being objects of consciousness. This may sound like a very pompous platitude; but it is nevertheless, I think, the statement of the ultimate situation in regard to cognition. [8]

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[4] William James, *Essays in Radical Empiricism.*
[5] *Ibid.*, p. 9.
[6] *Ibid.*, p. 48.
[7] *Ibid.*, p. 80.
[8] The cognitive relationships of consciousness or "thought" and its various classes of objects I have already discussed in Book i.

Consciousness then is a function rather than an entity. But I would insist that it is a function or attitude of a unique kind of entity in unique relations; namely, a *self* or *subject*. Whatever be the specific character of the things, or relations, or things-in-relation, which constitute the immediate objects of one's being cognitively conscious, to such objects there must be added the uniqueness of the relation which consists in their being for a conscious self, in order that justice may be done to the nature of experience. Experience without the self is like the tragedy of Hamlet without the Prince.

What does the relating? What *makes* or *sustains* the transitions? Of what is consciousness, as thus described, a function? James's theory seeks to lay the ghosts of the dualisms of mind and body, of thought and physical things, of immanent experiencing subject and transcendent object, which have annoyed philosophers for centuries. But the theory has an artificial simplicity. The question bobs up once more, what makes the difference between those relations and transitions in experience which constitute a personal biography with a consciousness, and those which constitute the same bits of pure experience physical objects? Is it simply the difference between organized and unorganized material systems? Is it the difference between those which have nervous systems and those which have them not? Or is it, perhaps, the difference due to a specific complexity of nervous system? When we raise these questions we are back again with the old problem of mind and body. The attempt to "side-step" dualism by invoking a neutral world of pure experience evades the issue. I do not say that dualism is the last word in this matter. But whether one call consciousness a function, or something else, it *has* an "inner duplicity," which cannot be evaded.

"In order that there should be an experience, it is not sufficient that qualities and relations should be or be there; it is likewise necessary that they should be in a recognizable and identifiable synthesis. The synthesis is an actual factor of experience." [9] Consciousness is always individual, and it is capable of becoming aware of itself as such. We are conscious in relations, and we are capable of being conscious that we are conscious, as well as con-

[9] E. B. McGilvray, in *Journal of Philosophy, Psychology and Scientific Methods*, Vol. vi, p. 230.

scious of the specific relations in which we are conscious. Any theory of experience which fails to take due account of the principle that it is the ego which makes the transitions and recognizes the relations, which constitute a "personal" history, is inadequate. *The synthetic function of conscious selfhood remains the central fact in the world of experience.* The individual is an "I," a subject of experience, which can never be reduced to the particular and changing contents of his experience. To say "his," or even "its," experience, implies an ego of some sort. Let one try to give a circumstantial account of a day's experiences, with all reference to the conscious self left out, and he will see what tiresome absurdities the denial of the ego lands him in. James himself frequently referred to the fact that personal consciousness is a continuum; for example, "personal histories are processes of change in time and the change is one of the things immediately experienced." [10] "Change in this case means continuous as opposed to discontinuous transition." "Practically to experience one's personal continuum is to know the originals of the ideas of continuity and change." But this implies that the self is a synthetic principle which grasps together a succession of contents, and knows itself as the active power which does this work. *What the self functions as,* namely, as an individual focus of relationships, and *knows itself to function as,* is what the self *is.*

The standpoint of James on this matter of a virginal experience as the original reality which apparently both antedates and transcends the dualistic impurity of common-sense thinking is closely akin to the standpoint of Mach,[11] and still more to that of Avenarius.[12] I am not clear as to whether, when we are babies, who have come "trailing clouds of glory" from the world of pure experience, we sport in the ocean of pure experience, which later is falsely bifurcated, as "shades of the prison house begin to close upon the growing boy," and as to whether the undifferentiated neutrality is restored by the simple use of the word "neutrality." Is pure experience what we set out with, or is it what we arrive at, after having wandered long in the mazes of duality and unneutrality? Or is it both? I know not. But, since James' dark hints have been taken up and further developed in the writings

[10] James, *ibid.*, pp. 48 and 50.
[11] *Analyse der Empfindungen:* translation, *Analysis of the Sensations.*
[12] *Der Menschliche Weltbegriff,* and *Kritik der reinen Erfahrung.*

of certain American Neo-realists I shall discuss the matter further with reference to their doctrines.[13]

Briefly, according to its latest oracles, neutral monism means the following—the world consists of an indefinite variety of *neutral elements;* that is, elements that in themselves are neither physical nor psychical, which constitute an indefinite variety of complexes, since they may be in an indefinite variety of relations. These neutral entities are *existentially many,* but *qualitatively of the same substance.* "In themselves" they are very pure and tenuous, for they are logical "terms" and "propositions" which, though logical, are active and generative of more complex entities. Mind is a class or group of entities within the subsisting universe, as a physical object is another class or group (Holt). A mind makes a cross section of the world which is always a group of the integral (neutral) components of the object and of its immediate relations (Holt). Any mind or consciousness consists of certain of these complexes that are in the relation of being present; that is, consciousness is any part of the field of neutral entities that is illuminated. The same entities may exist, just as they are in relation to a consciousness, out of relation to consciousness without any change in them. They are the same in the dark as in the light. In fact consciousness, we are told, is like a searchlight that plays over now this, now that, group of objects. Consciousness is the manifold or class of all objects on which the illumination falls.[14]

I ask the reader to note that, if the neutral monist have his way, Shakespeare was clearly wrong when he asked, "What's in a name?" Our neutralist settles the whole issue here by a new baptismal formula, "N. and M. I baptize thee both *neutral entities.*" With what guileless simplicity may we not then accept the statement that "any mind consists of certain neutral complexes

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[13] See Perry, *Present Philosophical Tendencies,* Chapters 12 and 13, and the joint work, *The New Realism,* especially the essays by Perry on *A Realistic Theory of Independence,* Montague, *A Realistic Theory of Truth and Error,* and Holt, *The Place of Sensory Experience in a Realistic World.* Also Holt's book, *The Concept of Consciousness,* especially Chapters 6 and 13. The most penetrating published criticism of Neutral Monism will be found in Bertrand Russell's "The Nature of Acquaintance," *The Monist,* Vol. 24, 1914, especially pp. 161–187 and pp. 435–453. But Russell has lately gone over to the camp of the *Neutral Monists.* See his *Analysis of Mind.* See also G. Dawes Hicks, "The Basis of Critical Realism," in *Proceedings of the Aristotelian Society,* for 1916–1917.

[14] Holt in *The New Realism,* p. 352.

that are in the relation of being present in awareness"! All we need is a light, to wit, a *searchlight.* Consciousness is the resultant illumination. Where does the neutralist get the searchlight, and what does the playing, the cross sectioning, the selecting, the attending?

Here is the answer! Any class that is formed, from the members of a given manifold, *by some selective principle* which is *independent* of the principles which have organized the manifold, may be called a *cross section* and *such a thing* is *consciousness*—a *cross section of the universe, selected by the nervous system.* The elements or parts of the universe selected, and thus included in the class mind, are all elements or parts to which the nervous system makes a *specific response;*[15] "elements which become mental content *when reacted to in the specific manner charteristic of the central nervous system.*" [16] Thus the real attentive and selective agency when anything, whether physical object, or process of the organism itself, scientific law or formula, logical principle or process, or psychic value, is present as consciousness, is the nervous system.

Neutral monism is thus an attempt to account for the duality of experience, its inner duplicity (James), or the two-term relation of subject and object, as Bertrand Russell calls it, by having resort to a highly hypothetical and dubious circumlocution for an elementary *quale* of experience, and by substituting for the empirical characteristics of consciousness and the physical world a set of ghostly logical entities of neuter gender which, however, being endowed with a nonghostly wriggle or crawl, can engender the complexes which ordinary mortals call mind and matter. The neutral entity is the Herbartian "real" *redivivus.*

Neutral monism fails to account for consciousness for the following reasons: (1) It fails to account for the feeling of difference between the contemplation of objects as a part of one's personal experiences (perception) and of objects as existing apart from one's personal experience (imagination). (2) It does not explain how one could have any knowledge of past things. What becomes of time, without the continuity of some entity differing in character from an assemblage of things in space relations? (3) Without the consciousness of the self-persistence of the experi-

[15] *Ibid.*, p. 352 ff.
[16] Perry, *Present Philosophical Tendencies*, p. 299.

encing ego in time how is one to account for a present temporal belief in a nontemporal fact or principle, such as a logical or mathematical principle, an ethical value or a scientific law? (4) How can there be introspection or self-consciousness, how can awareness of awareness exist, if awareness be simply a selective response of the nervous system to neutral elements? Can a searchlight search its own searchings? (5) Neutral monism fails to give a tenable *theory of error.* How can there be wrong judgments concerning the relations of neutral elements, if consciousness is only the passively illuminated field, a cross section of certain complexes of neutral elements in relation? It is a far-fetched explanation of error to say that the nervous system selects as real certain relations between elements, which relations are really unreal. What does this proposition mean?[17]

(6) What does the illuminating? What makes the selective response? The organism or the nervous system, we are told. But these are either mere *physical* complexes, or they are physical complexes *plus attentive consciousness* or *mental activity.* If they are the latter we have, not *neutral monism,* but a duality-in-unity. If they are the former we have, not *neutral* monism, but *materialism.*

Thus neutral monism is not neutral. It is either a new and specious name for materialism, or it is a plausible way of glossing over the duality of subject and object. Either the neutral elements which compose, by joint action, the nervous system are just physical elements, or there is a *hyper-physical principle of selective synthesis.*

(7) Neutral monism involves psychological atomism (Holt sees this). But atomism is untrue to the unitary nature of self-activity and self-feeling. It is really an attempt to revive Hume's philosophy of the self as a bundle of atomistic "impressions" and their copies. But what does the bundling, the shifting of the field of illumination? Hume was more logical. He averred

[17] I am aware that Holt makes a brave attempt to dispose of these objections, but to my mind his explanations only reveal the more clearly the artificiality of the whole procedure of neutral monism. Holt attempts to explain, in terms of neutral entities, knowledge of the past and future, especially of the past, and the fact of error. I have not space here to examine his arguments, and I must content myself with inviting the reader to compare the explanation of knowledge of the past and future and of error given on the basis of neutral monism, and that given in the present work on the hypothesis that the conscious self is a temporally active knower and purposive agent.

that he did not know. He saw that the nervous system could be nothing but a bundle of impressions, too. Even a searchlight is a planned and unitary machine assembled by one who thinks himself a purposive unifier of physical elements. Someone plays it over objects for a specific purpose.

Either the light of consciousness is nothing, no one assembles or works it, and it reveals nothing since there is nothing to reveal; or it is a *product* of the nervous system (materialism); or it is a function of a psychophysical entity (my own view and the view of all who believe in an ego).

Neutral monism is only a new kind of materialism, parading in the guise of a multitude of tiny and bloodless logical "entities" or "absolutes." Paraphrasing Bradley's well-known words, reality is not an unearthly ballet of bloodless "terms" and "propositions," even though these be inconsistently endowed with the power of generation.[18]

Another recent attempt to make a novel definition of consciousness is that of *moderate* or *functional behaviorism.* Immoderate behaviorism denies to consciousness any genuinely verifiable function. Functional behaviorism defines consciousness as the margin or fringe in adaptive reactions, where instinct and pure habit are inadequate. The function of the brain is to coördinate responses, and consciousness is thus a correlation between bodily processes and changes in the objects. It is the sign of the specific kind of brain activity that has to do with the correlation of stimulus and response at points where instinct and pure habit are inadequate.[19]

Selective determination and redirection of behavior by a future that is made present in perception (and imagination), "control by

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[18] In evidence of the justice of my criticism I make the following further citations and references:

"Its processes (the nervous system) are of a mathematical and neutral structure, just as much as the path of a ray of light is a function of densities, temperatures, magnetic deflections, and indices of refraction—neutral entities all, and unidentifiable with any, even the smoothest atoms of Democritus." (Holt, *The Concept of Consciousness,* p. 255.)

"But just as in the sciences of physics and chemistry these physical entities are seen on analysis to be aggregates of logical or neutral entities, so that the physical processes are simply not describable as a movement of *material* particles but are strictly mathematical manifolds." (*Cf.* Holt, *op. cit.,* Chaps. 7, 11, 12, especially, p. 255.)

[19] Taken almost *verbatim* from Bode, "The Definition of Consciousness," *Journal of Philosophy, Psychology and Scientific Methods,* Vol. x (1913), pp. 232–239. See "The Method of Introspection," the same journal and volume, pp. 85–91 and "Consciousness and Psychology" in *Creative Intelligence.*

a future that is made present," is what constitutes consciousness. "A perceived object is a stimulus which controls or directs the organism by results which have not yet occurred, but which will, or may, occur in the future; . . . the future is transferred into the present so as to become effective in the guidance of behavior." [20]

Clearly this view is right to the extent that attentive consciousness is a concomitant in the making of responses to novel stimuli, that is, the meeting of new situations by the organism. It is right in finding a distinctive *quale* of consciousness to be teleological adaptation by anticipation, through which the future becomes operative in the present. But this is not the whole story. This conception of consciousness is too narrow to cover all the facts. The functions of consciousness are not exhausted in meeting novel situations, and controlling behavior by reference to the future. When I am enjoying a delightful æsthetic experience, an object in nature or art, or contemplating with satisfaction the symmetry and harmony of a mathematical construction or the logical structure of any intellectual system, or "living" in the past with some significant historical period, event or character, my consciousness, keen, vivid, and delightful, may have no reference to my own future behavior or that of anyone else. This pragmatic or instrumentalist conception of consciousness errs by taking one important function of consciousness and making it the sole function to the exclusion of other worthful functions. Disinterested contemplation and enjoyment of an experience for its own sake can be called "behavior" only in a very Pickwickian sense; and yet it is, for some human beings at least (and I believe for many in one form or other), one of the most significant and worthful functions of being conscious. "For to admire an' for to see," although "It never done no good to me," is, in the words of Kipling's Ulysses of *The Seven Seas,* a joyful and persistent function of consciousness.

The conscious ego is active in the organization of experience. Even in receiving and recognizing sensations the self is active in some small degree. It is active, in much higher degree, in organizing, classifying, and connecting causally and teleologically its rudimentary experiences. In the purposive processes by which

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[20] Bode, "Consciousness and Psychology," *Creative Intelligence,* p. 244.

ends are formulated and realized, in both practical and theoretical life, the conscious activity of the ego is most fully manifested.

In brief, consciousness is the function of selective response, finding of meanings, and creative purposive synthesis, by which the psychophysical self is able to effect new arrangements in experience to meet novel situations in its physical or social environment or in its own inner psychophysical content; and thus to create, maintain and enhance the enjoyed values of experience.

III. The Idealistic Theory of Consciousness

Objective idealists such as Fichte, Hegel, Green, Bosanquet and Royce find in mind or self-conscious individuality at its highest level a key to the structure of reality. Bosanquet, for example, finds in mind the true system of oneness in manyness, of the harmony of sameness and otherness, of self with self, of the solution of the contradictions in experience. In short, mind is the true type of dynamic and significant organization of parts into a living system, of the continuous realization, through the unrest of negativity and the conquest thereof, of a harmonious whole or individuality. Thus mind is the key to the structure and meaning of the entire cosmos. Whether this claim be justified must be left unquestioned for the present.[21]

Certainly the idealistic conception of the nature of conscious individuality contains a profound truth and must be included in any philosophy that is to be adequate to the whole meaning of experience. Self-conscious individuality is dynamic and social, the self develops in interplay with other selves and with the physical order. The continuity of the self's life is found in rational valuation and purposive activity. This life involves a dialectic process. Negativity, the practical and theoretical recognition of oppositions or differences between self and not-self (other selves and the physical order) is a prime condition for the growth and maintenance of selfhood. The development and maintenance

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[21] See further, book v, "Cosmology or the General Structure of Reality." The following are important references for the idealistic conception of consciousness: F. H. Bradley *Appearance and Reality*, especially chapters 14, 15, 19, 26; J. B. Baillie, *The Idealistic Construction of Experience;* B. Bosanquet, *The Principle of Individuality and Value*, especially Lecture vi; J. S. McKenzie, *Elements of Constructive Philosophy*, especially Book ii, Chaps. 6, 7, 8, 10 and 11; Josiah Royce, *The World and the Individual*, Index.

of self-conscious individuality is thus the process of transcending the actually attained selfhood, the process of ever finding the one in the other, of overcoming the opposition between self and other; which opposition, so far from being an insoluble contradiction, is rather the play of difference or contrast within the nature of life and mind itself. Thus mind, regarded as equivalent to self-consciousness, is a systematic and developing unity which realizes itself and maintains itself by continually going beyond itself, by apparently negating itself, by dying unto itself in an other than self. Self and not-self, the individual and its other, have no meaning or existence when sundered from one another. The opposition, the conflict between self and other, is not the impassable separation of two absolute, incompatible and different kinds of reality. This opposition is the prime condition of self-realization through self-transcendence.

The idealist finds in the stubborn and resisting character which physical nature presents, a phase of the otherness or negativity by which the self in transcending its already achieved character realizes itself. The qualities of brute matter, the struggle for existence, pain, disease, and death, are incidents necessary to the development of souls. The dialectic of selfhood is even more rationally and continuously manifested in man's social life than in man's relations with physical nature. Every social relation into which the self enters involves the dialectic, the otherness; that is, the interplay of differing beings. Only by overcoming the opposition between self and the other self in love and marriage, in the community life, the vocational life, the national life, the religious life, can personality live and develop. "He that seeketh his life shall lose it and he that loseth his life shall find it." The self which tries to evade these relationships, which gives no hostages to fortune, which buries its one talent in the ground, which takes no risks, which tries to live like the epicurean wise man, by shutting itself off as far as possible from all relationships which may disturb its equanimity, thereby shuts itself off from the possibility of true self-realization. Life is an obstacle race.

This is what Hegel means by the power of negativity as the moving spirit of life and mind. In maintaining one's physical well-being, in learning and discovering, in living in social relations as a member of the family and community, the individual finds his true selfhood only in going outside of his own selfhood and in

discovering his true nature in the other. Spinoza said all determination is negation or limitation. The objective idealist adds that all negation involves affirmation. Consequently, only through negation or limitation is limitation transcended. Logically, all genuine negative judgments, that is, all that are more than mere word play, involve correlative affirmative judgments. One can deny that a specific attribute inheres in a subject only if one be aware that some other positive attribute incompatible with the attribute denied inheres in the subject. If I say, for instance, that to-day is not cold, I imply that it has a positive quality incompatible with coldness. If I say that *A* is not honest, I say by implication that he has a positive quality incompatible with honesty. On the other hand, affirmative judgments imply correlative negative judgments. If to-day is warm, it is not cold. If *A* is a thief, he is not honest. Reality, as object of thought, must be a coherent system of differences or correlative individual elements. Thus affirmation and negation are two sides of the same whole of judgment. The objective idealist widens the application of this logical principle to the whole of life. Negation is a dynamic quality of conscious life taken as a whole. If reality were a static and lifeless system, then the power of the negative would be an illusion. The dynamic quality of negation means that reality has a living and spiritual character, that it is a concrete system of interrelated selves. If reality be rational, if it moves through and by the activity of spirit, negation is an essential phase of reality; for the power of the negative consists in the continuous self-differentiation of individuality as a living member of a system of individuals. Self-conscious individuality can develop only through conflict, through opposition, which issues in the profounder union and positive growth of selves in social relations. In the ethical realm the self becomes a spiritual reality, it serves intrinsic values, only through meeting and overcoming the opposition between reason and nature, between impulse and the social *ethos,* between itself and other selves. It is through the conflict within its own bosom, which is reflected in the conflict in its social relations, that the self wins at the same moment internal harmony and social harmony, and only through this process is ethical personality developed. Feeling depends for its enlargement and enrichment, by the attainment of a richer and more comprehensive harmony, on the fact that in its higher forms it is an experience

of harmony in difference which overcomes and holds in solution the opposition or contrast of individualities. Such states of feeling are preëminently love and friendship. That these states of feeling are harmonious and pervasive unions of differences, that they always hold in concentrated solution the element of negation, is shown by the intensity and suddenness with which they may pass into their opposites.

In religion the development of spiritual experience through the overcoming of opposition reaches its climax. The finite self becomes conscious of itself as an apparently independent being, then conscious of its sinfulness, misery and worthlessness as involved in such independence; it denies itself in the presence of the absolute and perfect, and in this very self-denial, this humiliation, this overcoming of selfhood, this dying to live, the finite self becomes renewed and uplifted, it becomes one with the infinite and perfect. And, on the other hand, the absolute self, as concrete living spirit, must find its own life, as self-expressive activity and love, in and through the lives of the society of individual and finite members of reality.

At the outset of its career the self has only being-in-itself. It is only a potential personality. It becomes an actual personality, a spiritual individual, through the dialectic by which, in finding an other than its present desire, passion or aim, in the conflicting desires within itself, in conflict with physical selves, in the clash with other wills, it becomes able to identify itself with the other, to expand itself into union with the other, and thus to attain a being in-and-for-itself, to return into itself enriched by its self-alienation and self-denial in its world. The most familiar experiences of the othering or dialectic process are to be found in friendship, love, social and political life, the life of the family. Art, religion, science, and philosophy are themselves more subliminated stages in the othering process by which the self, not finding elsewhere full satisfaction of the craving for conscious union with the universe, finds, in the expression of its ideals in sensuous materials (art), in the imaginative forms of picture thinking (religion) and finally in the conceptual forms of thought (philosophy) wider and deeper experiences, of its membership in the universal spiritual order, of its kinship with the complete spirit of harmonious thought.

Thus the idealistic doctrine of consciousness or experience is

turned into a metaphysic or cosmology, by the identification of the significant features of human experience, as regarded from the point of view of the dialectic process, with the meaning of reality as a whole. Whether this identification be legitimate is a question to be considered later. We shall find grounds, as we proceed, for holding that the idealistic interpretation of experience ignores certain aspects of the life of selfhood; specifically, that it tends to merge the individual self in the absolute. The doctrine of the othering process, the dialectic of life, is a true insight in regard to the nature of conscious individuality. But it is not the whole truth. In the measure in which the self grows into full personality, it becomes more self-determining, more an inner focus and self-moving center of social and cosmic relationships. As the center of its individuality increases in harmony, so its radii of relationships are enlarged. The richer and better organized a selfhood, the more distinctive and central and uniquely characteristic is its individuality. Therefore, I shall argue later on, the world of selves cannot be regarded as included in one all-embracing self.

CHAPTER XXV

THE SUBCONSCIOUS

If we picture the contents of consciousness as a field, like the field of vision, we may say that this field is not equally illuminated at all points. Between its vivid center, which may be occupied by a feeling, a perception, or a plan of action, and the periphery, at which consciousness ceases, there may be a penumbra, or fringe, of contents of which one is only dimly aware and with degrees of dimness. Relative to the vividness of the central content, the contents which are in the shade have been called "subconscious." A less equivocal designation for this feature of consciousness would be *subattentive* or *vague consciousness.* It is not properly called "subconscious," since there is no break between what one is vividly conscious of and what one is more dimly aware of. In any pulse of consciousness all its distinguishable features are parts of the total state of being conscious.[1]

The second type of so-called subconscious process consists of elements of experience that are not actually present as such in consciousness at the moment, but of which the mind may become aware by attentive memory and discrimination. If, when writing, I do not attend to the sound of a bell ringing or a clock striking, and can afterwards recall the sound, it is argued that the sound must, at the time of its occurrence, have entered the field of my experience as a subconscious content. Again, we take in complex perceptual and affective experiences as wholes or fused masses, which experiences we afterwards analyze into their elements. One can listen to a violin or orchestra as a total musical experience, or one can analyze the music into its component tones. Similarly,

[1] It is very questionable if there is any such thing as wholly inattentive consciousness. The focal objects of clear consciousness may be shifted with great rapidity, and, in this shifting, consciousness may carry with it a considerable mass of vague details. I hold that clearness of consciousness is equivalent to degree of attention; in other words, that attention is not a special power or phase of consciousness. The scope and degree of attention is the scope and degree of consciousness.

one can analyze an object, perceived as a combination of various sense-qualities, into sensations of form, color, touch, smell, taste. In the total concrete experience these sensational elements are said to be subconsciously present. A more tenable explanation of facts of the first kind is that the past stimuli, which I did not perceive at the moment of receiving them, left traces in my brain; and that, before these traces have become too weak, I can shift the emphasis of my consciousness and thus become aware of the objects. In the case of fused perceptual experiences the same principle of explanation holds good. I do not really sensate the separate sensations as such, unless, by attentive analysis, I shift the emphasis of my consciousness, and then, for the first time the separate sensations become discriminated contents of my experience.

A third and more important type of alleged subconscious process is that of dissociated or "split-off" ideas and systems of ideas present in the same body without mutual awareness. Professor Morton Prince found in his case of Miss Beauchamp and others, that there actually coexisted, along with the primary or dominating consciousness, other active systems of ideas, with distinctive characters or individualities, of which the primary consciousness was not aware. He finds that these phenomena occur in the neatest and most precise form and "are best adapted for experimental study in so-called automatic writing and speech." [2] "The one fundamental principle and criterion of the subconscious is," he says, "dissociation and coactivity." [3] And the point at issue he rightly says is this—do ideas ever occur outside the synthesis of the *personal self-consciousness* under any conditions, whether of normal or abnormal life; so that the subject is unaware of these? Many investigators agree with him that such ideas do thus occur. But for whom do those ideas occur? Who is aware of them, besides the observer who assumes their existence? Ideas can exist only for an individual consciousness. If, then, co-conscious complexes of ideas exist this means that, simultaneously, there must be associated with one brain several distinct individual centers of consciousness or "souls." There must be quasi-independent complexes of percepts, images, affections, and purposes, each with a unity and individuality of its own.

[2] *Journal of Abnormal Psychology*, Vol. ii, pp. 69, 70.
[3] *Ibid.*, Vol. ii, p. 78.

The evidence for these co-conscious systems falls under the following rubrics: (1) The multiple personalities discussed in the next chapter; (2) automatic writing; (3) the anæsthesia and behavior of hypnotized subjects who, in the post-hypnotic condition, have no memory of what occurred to them when in the hypnotic state; (4) the post-hypnotic fulfillment of suggestions, given while the subjects are in the hypnotic state. These, it is said, may extend to blindness, deafness, and general insensibility to another person's presence; and even to the subject playing the suggested rôle of an entirely different individual; (5) the counting of numbers, drawing of figures, etc., which have been impressed on an anæsthetic region of the subject's skin.

It is argued that the intelligence and purposiveness of subjects observed under these conditions require the assumption of a *subconscious self* or *secondary personality* to account for them. Now, it seems to me that the application of the term "personality," which properly refers to the maximum of conscious and rational synthesis in our psychical life, is, in such cases, a misnomer. I do not find in these cases sufficient evidence of intelligence, rational integration, and purposiveness, to merit calling them "persons." Moreover I think it probable that many of these phenomena are due to simulation. Many of them do not require the invocation of any different principles than those involved in ordinary physiological automatisms. We do not invoke co-conscious complexes of ideas to explain walking through crowded streets with our minds intent on things very remote from our immediate environment, writing while thinking of something else, or the anæsthesia of the football or lacrosse player.

There is no line of mystery separating the automatisms and suggestibility of hypnotized subjects, or even multiple selves, from normal experience. We are all to a very large extent automata, and to an equal extent suggestible beings. Our manifestations of individuality undergo mutation from year to year, from month to month, and sometimes even from hour to hour. We all play a variety of rôles, at home, in business, in church, in politics, at the club, on a vacation. In the lives of normal selves single feeling-impulses and groups or systems of feeling-impulses—love, hate, anger, lust, passion for adventure, desire to break the monotony of existence, to run amuck of convention—arise frequently. Apparently they come from nowhere and intrude themselves into the

humdrum of consciousness, often with surprising suddenness and strength.

Below the well-defined area of normal conscious life, there is the ill-defined and teeming region of unconscious tendencies, of blind impulsions and vague unrests, of biologically determined instincts and appetites, which seem to be psychical as well as bodily in character; in short, there seems to be a deep reservoir of unconscious psychical energies, which constitute, to a very large extent, the springs of our conscious life-activities.

Further, there is the problem as to how our memories, acquired habits of thought and action, highly specialized knowledge, practical powers of judgment and technical skill, persist when they are not in conscious operation? Again, what are we to say of sleep and dreams? What becomes of the psychical self in deep and dreamless sleep? Is there such a state as absolute suspension of thought, or does the soul always think, even in dreamless and profound slumber? Is the belief that we were wholly unconscious simply due to the rapid oblivescence and the striking break of continuity in experience, which takes place on our waking to surroundings that are incongruous with the fairy land of the dreaming life of slumber? When one awakens with the solution of a difficult problem that was left unsolved when one went to sleep, did the brain think without the mind, did it in short carry on "unconscious cerebration"? Or was the mind consciously active in sleep, and does it simply forget the intermediate steps, when the conclusion becomes clear at the moment of waking? Or does the mind, refreshed by rest, undisturbed by any train of conflicting interests, and with the last train of predormant conscious activity ready to be revived, concentrate on the problem, when it awakens; and, with enhanced and unimpeded activity, reach a solution so rapidly that the result seems to come instantaneously and out of the dark?

Are dreams explicable solely in terms of the psychical contents and neural stimuli which persist from the day's waking life, from the internal bodily states such as the condition of the digestive system or the sexual glands, and from local sense stimuli, such as those occasioned by lying in an unusual position or the pressure of some protuberance? Or must we invoke another factor in the shape of unconscious psychical energies which have lain dormant or suppressed during the waking life?

Professor Sigmund Freud, in his book *Die Traumdeutung,* argues very effectively for the view that dreams are *suppressed wishes,* and that most of them go back in origin to the repressed impulses of childhood and adolescence, notably to the sex impulse, the most persistently repressed of all man's primary appetites. Professor Freud's argument supports very strongly, from the facts of dream life, the doctrine of persistent unconscious psychical complexes. I have not space to discuss here his general psychological theory as based on his study of dreams. He distinguishes three types of psychical life—the *conscious,* the *preconscious* which may become conscious, and the *unconscious.*

The Freudian theory exaggerates the extent to which the character of personality is determined by unconscious complexes. In particular, it greatly exaggerates the influence of suppressed sex impulses. This is a case of the neuropath's fallacy. Normal personality is interpreted in terms of data gathered chiefly from neurotics, especially neurotic women. The grotesque ingenuity with which Jung, in his book *The Unconscious,* twists all literature and religion into expressions of the *libido* is another instance of riding a theory, based on human abnormalities, to death. The individual whose sex life is a healthy part of a well-balanced personality does not suffer much from suppression complexes. Undoubtedly many dreams are the expression of thwarted wishes, but many others are merely the consequence of the free play of mental association started by some casual thought or experience of the day before. However, Freud and his school have brought to attention two important truths in regard to human personality—1, that the character of personality is determined to a great extent by its unconscious constituents; 2, that the unconscious, no less than the conscious, factors of personality are dynamic. Indeed, often the unconscious is more dynamic than the conscious.

I shall later argue for the reality of unconscious psychical complexes on more general grounds. While the evidence furnished by a careful study of dreams does powerfully support the belief in an unconscious psychical life or energy, this by no means involves the reality of the so-called "subconscious self" in the sense of a being wiser and more powerful than the conscious self. Granted that some dreams are the expression of repressed desires, and that these are chiefly infantile in origin (I am not ready to admit the latter proposition to the extent which Professor Freud

argues for), all that is necessarily implied thereby in regard to the unconscious is the persistence in the adult of biological impulses and appetites. The organized rational and moral life of the normal adult supervenes upon, and is indeed the transformation of, the primitive biological individuality, through the influences of cultural training and intellectual activity.

The possibility of "split-off ideas" or "co-conscious ideas" may be conceded, but their actuality is not established by the evidence adduced. The purposiveness and intelligence of automatic writing, posthypnotic suggestions, and so forth, would be equally well accounted for on the Freudian theory of unconscious psychical energies. The latter theory does not involve, as does the former, the assumption that "ideas" can exist either singly or in complexes, apart from the main stream of consciousness. Coconscious *ideas* would be states of consciousness existing apart from any personal knower. But such a notion is a contradiction in terms. If real, they would involve at best more than one personal knower in the same body. Such an assumption is both improbable and superfluous. That several mutually independent clusters of ideas exist in the same living body is very unlikely. Their existence would involve the absence or suspension of the principle of personal synthesis and memory, *without which there can be no consciousness and no ideas.*

We have now to embark upon the quest for the "subconscious self" in its most mystical form. In support of the reality of the distinct subconscious self there are cited the cases of sudden inspiration, inventive work, improvisations, and creations of men of genius, who have written great poems, composed great music, or hit upon world-transforming thoughts, without knowing how or why they did these things. According to F. W. H. Myers and others, the *subliminal self* or *subconscious self* is the great wonder worker in the realm of human personality. It is a reservoir of almost unlimited power, wisdom, and insight. It is not a far cry from the assertion of the subliminal source of genius and of all unusual mental achievements to its invocation as the real agent in automatic writing, prophetic and warning dreams, second sight, telepathy, and the supposed veridical messages from departed spirits. Finally, since this subliminal self is unplumbable in its depths, deathless, and, like Melchisedek, without local habitation or parentage, why not regard it as our organ of communication

with Deity; nay, perhaps, as in very truth the absolute cosmic self speaking in and through our fragmentary selfhoods.[4]

It behooves us here to walk warily and to keep all our critical wits about us. There is probably no other psychological and metaphysical conception which has been used in so many shifting senses, or that has been made the catch-all for so much pseudo-science and mythology as that of the "subconscious self."

The concept of the subconscious is properly employed as a principle of interpretation in the metaphysics of psychology to designate the psychical substrate and source of consciousness. The inborn and acquired powers of conscious selfhood seem to involve the reality of a subconscious psychical energy or life as their support and ground. The development of congenital capacities, and the acquisition and retention of new powers of judgment and action, lead to the hypothesis of *neuro-psychical dispositions,* in which these functions and capacities are conserved, when not in actual conscious use, and grounded when in actual use.[5] The only alternative to this view is the hypothesis that the structure and processes of the nervous system constitute the sole conditions of consciousness, and that consciousness arises simply when neural processes reach a specific degree of intensity and complication. From this standpoint the enduring or substantial basis of all mental life consists of neurograms, that is, neural paths, in the cerebral cortex. Unless one is to regard the central nervous system as the *sole* conservator and condition of operation for all congenital and acquired psychical capacities, including the most highly developed powers of trained expert judgment, and of refined and elevated feeling, one must admit the actuality of unconscious neuro-psychical dispositions or organized potencies of conscious life. At any moment in which a cross-section of our adult conscious life may be envisaged there are many of these dispositions which show no signs of conscious activity. Either the powers and achievements of the self, which are not explicitly in consciousness at the moment of experience, are conserved simply and solely as structural modifications of nervous tissues

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[4] See Myers' *Human Personality and Its Survival after Death;* also William James, *The Varieties of Religious Experience.*

[5] On this matter compare G. F. Stout, *Manual of Psychology, passim,* and James Ward, article, "Psychology," *Encyclopædia Britannica,* 11th ed., Vol. xxii, p. 560.

and their functioning; or they represent, in addition, functions of an immaterial or psychical principle of activity which is never fully represented in the momentary awareness of the self. Both alternatives present almost equal difficulties for thought. On the one hand, how shall one conceive all the powers of poet and artist, all the garnered wisdom of the sage's ripe life, all the knowledge and expert judgment of the statesman or scientist, as persisting simply in the structure of the brain? On the other hand, how shall one conceive an immaterial and unconscious principle of psychical activity, when "psychical" is known to us immediately in the form of consciousness alone?

A final decision between these two hypotheses must depend on one's general metaphysical theory as to the relation between mind and brain. I shall argue later that the view which assumes at once a distinction and an interdependence between mind and brain is the most defensible hypothesis. If one accept, as I do, this duality-in-unity, the problem as to how our psychical dispositions persist becomes the question as to the best way of conceiving the actuality of mental functions when these are not consciously operative. I find the most satisfactory conception to be that the mind is a complex principle of activity or psychical energy, no phase of which is ever wholly in abeyance. "The soul always thinks." The enduring self is a synthetic principle of activity which includes more than is in consciousness at any moment and is the generating principle of consciousness. This principle of synthesis is immediately known in self-feeling, and inferentially known as the enduring unifier and sustainer of all capacities to think and to act which become manifest in the histories of selves. *In part,* then, *the self is, at any instant, unconscious.* It sustains and binds together successive moments in the empirical consciousness. The actual self is a principle of progressive synthesis, a continuously active power of neuro-psychical organization, which can never be fully revealed in any single instant of conscious feeling and activity.

Precisely to what extent the psychical self is dependent upon the nervous mechanism for the conservation and development of its powers we cannot say. It evidently depends on neural stimuli for the materials and occasions on which it reacts with percepts, images, meanings, volitional acts, and emotions. But it is open to one to maintain that the results of these reactions persist as

the *neuro-psychical dispositions,* and that, to this extent, the soul develops capacities whose conservation is not accounted for in terms of neural action alone. The unifying and sustaining principle of selfhood is active in the successive moments of consciousness, and it persists in sleep and in other states of so-called unconsciousness; but all the specific modifications of the soul, in the shape of habits, memories, trained powers, are conditioned, in their development and expression, by modifications of the structure of the central nervous system.

Accepting, then, the reality of unconscious psychical dispositions, what follows in regard to the subconscious? It does not follow that there is a distinct subconscious self in each individual, more real and enduring than the conscious self. For these enduring dispositions to feel, judge, and act, no matter how multifarious and significant they may be, are yet continuous and interwoven with the individual's conscious life. The self is one in its potentially conscious and its actually conscious life. When I bring to bear on a problem a trained power of judgment, which I have not for some time exercised, my conscious life still preserves the continuity of this reawakening function with the dominant purposes and experiences which have preceded that reawakening and which condition the emergence of the new act.

Finally, we must consider, briefly, the mystical doctrine, already referred to, of a subliminal self; gifted with extraordinary wisdom, insight, and wonderworking power, and which, nevertheless, engages in such trivial exercises as automatic writing, table rapping and tipping *et hoc genus omne.* This subconscious self is held to be the source of mankind's most significant inspirations, and achievements. It finds its chief support in the dubious and misty realms of so-called "psychical research."

The "subliminal self" is invoked to explain prophetic and warning dreams; to account for the messages conveyed by automatic writing and telepathy; to explain the inspirations of poets, prophets, and revealers; indeed, to account for all genius and the supernormal achievements of ordinary persons; finally, as the organ through which we may hold converse with the spirits of the departed and with Deity or the all-inclusive cosmic self.

Now, to take up these points in reverse order, I do not understand why, since my waking normal consciousness, humdrum and commonplace though it be, is the form of psychical activity on

which I must depend for my general intellectual and moral conduct in everyday life, the cosmic self and the spirits of the departed should ignore it and choose to send their messages only through this mysterious and uncertain realm of subliminal selfhood, which occasionally makes an eruption into the experience of a few favored individuals. Surely it is not fair, if there be a moral and rational economy of reality, that a few individuals, not otherwise remarkable above their fellows, should enjoy this monopoly of a private road to God and the spirit world! Moreover, the character of the messages hitherto received, their silly inanity and triviality amounting at times to stupid rot, do not augur well for the intelligence and æsthetic capacities either of the subliminal self who serves as receiver and transmitter, or of the senders of the messages on the other shore of the river Styx. However, let us suppose that veridical messages have been received from the dead, by the method of cross-correspondences.[6] These messages purport to come from a conscious person, and to be transmitted through the medium's organism to another conscious self. All that these messages would prove, if we took them at their face value, would be that the communicating spirit has preserved its personal consciousness and that a controlling self, the "Rector" or "Imperator," for example, might communicate through the brain of a living person. It might be *possible* that an individual soul could use several different brains for its communications with other souls but it is highly improbable that it ever does. The subliminal self is a superfluous hypothesis in this connection. It is equally superfluous in the case of telepathy. Let us suppose that messages are actually conveyed and sensations felt, across great reaches of space; say that almost instantaneously messages have been conveyed from India to England or America. These messages purport to come from conscious selves to other conscious selves. The fact that they may be uttered through automatic writing only serves to throw doubt on their genuineness, since they may, in these cases, be produced by the suggestion of the operator himself, or of the recipient on the operator, or,

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[6] On this matter see *Hibbert Journal*, Vol. vii, pp. 241 ff.; and *Proceedings of the* (English) *Society for Psychical Research*, Vol. xx, pp. 205–275; xxi, pp. 219–391; xxii, pp. 19–416; xxiv, pp. 170–200, 201–253. See also the writings of Sir Oliver Lodge, and James H. Hyslop; especially the latter's *Contact with the Other World*. Also Henry Holt, *On the Cosmic Relations*.

finally may be the genuine results of the reputed transmitter's or "control's" suggestion. Admitting a genuine telepathic communication between say India and America, what might we infer? Several possibilities would be open. Either that minds can sometimes act directly on one another without physical media of communication; or, that there may be an unknown physical medium, by means of which, if the psychical transmitting and receiving instruments be properly attuned, the message is conveyed and taken up with great rapidity. Light and electricity travel very rapidly and the action of gravitation seems to be instantaneous, why not the physical medium of telepathy? The third, and least intelligible explanation of telepathy is the distinct subliminal self.

Possibly all so-called telepathic phenomena will turn out to be the results of either; (*a*) autosuggestion by the medium, as in the phenomena of hysteria, or (*b*) hetero-suggestion by which the recipient of the message influences the medium. The former's expectancy may be the chief factor in producing the result. "Psychical" individuals have a suspicious way of meeting the demands of their patrons and friends.

It is extremely difficult to determine what residuum of automatic writing is performed without the coöperation of the writer's consciousness. Admitting that there is such a residuum, its *modus operandi* need not differ, in principle, from the automatisms of *hysterical* and *disorganized selves;* it may be like the secondarily automatic processes of the normal self, which, when first learned and practiced, required the coöperation of attentive consciousness; but which, when they have been repeated a number of times, come to be carried out without voluntary attention thereto, and, consequently, without clear consciousness thereof. A very large fraction of the phenomena of automatic writing is thus the resultant of forgotten experiences which arise unbidden, and, without apparent antecedent grounds, determine the course of the writing. If automatic writing does really sometimes produce results inexplicable by the writer's previous experience, or by the conscious suggestions of his associates, these results may be due to a supernormal sensitiveness to the mental contents of some one present. Thus, admitting the reality of unconscious psychical complexes, it is a misnomer to designate these vague, irregular, shifting psychical complexes, which are expressed in automatic writing, hypnotic and posthypnotic suggestion, disintegrated individuality,

and so forth, as true selves or personalities. These phenomena bear witness, at the most, to temporary, and in some cases, permanent *mental dissociation;* perhaps conditioned by the dissociation of the systems of neurones whose normal associations are the immediate *physiological basis of our coherent waking consciousness.*[7]

We do not get forward in the work of interpreting the mysteries of the psychical self, and its relation to the brain, by hypostatizing a second and subliminal self and endowing it with transcendent powers. This type of explanation is on a par with the explanation of the existence of various species of plants and animals by saying that God created them, or the relationships of physical bodies by saying that God holds them together. It is a clear case of explaining *ignotum per ignotius.*

The "unconsciousness" with which genius does its work is a well-worn phrase. The expression is a loose designation for the swift *intuitive energy* with which the genius goes forward to his goal, and for the *objectivity of his mental attitude* when immersed in creative work. There is danger of confusion between "unself-conscious" and unconscious. It does not mean that the conscious individuality of the genius has no part in his achievements, and that he must call in the subliminal self to account for them. Indeed, such a vague and vast subterranean reservoir of psychical power could have no individuality, no bounds or specific types of creative life. The genius would have no part or lot as an individual in his work, and we should not give him any credit or attach to the fool any contempt or to the wicked any blame. Everything must be all the same in the subliminal self. If this self is wiser, better, and more enduring than our conscious selfhood, why does it not do something to live up to its reputation as prophet, seer, and general wiseacre?

If the subliminal self be a real entity it presents a striking anomaly in the evolution of organisms. It represents a reversal of the whole course of vital and psychical evolution. The evolution of animal behavior has been in the direction of increasing control by intelligent consciousness. And the evolution of consciousness has been in the direction of purposive integration of the elements of experience and behavior under the control of the intellect. Any theory of personality which would yield control to

[7] *Cf.* W. McDougall, Articles on "Hypnotism" and "The Subliminal Self," *Encyclopædia Britannica,* 11th Edition.

the subconscious is virtually a demand that we reverse the course of evolution and dethrone the intellect or reason from the governing and directing place in the conduct of life. The fact that this proposal falls in with many irrationalistic tendencies in our social life to-day does not recommend it to me the more strongly. The conservation of culture I hold to be bound up with the leadership of reason.[8]

The entire evolution of psychical life has been in the direction of greater mental and rational integration. And we are asked to believe that persons who suffer frequent lapses from this rational integration and control are under the guidance of a higher wisdom, just as savages believed the insane to be inspired. We are asked to believe that the silly inanities of the automatic writer, the fairy land and topsy-turvydom of dreams, the "spiritual" orgies of neurotics, and so forth, are witnesses to the true nature of the self!

Even an absolute self could be known to me only in two ways; either through its direct intercourse with my conscious and reflective life, or by my inferring it as a hypothesis which harmonizes and justifies my conception of reality as a whole with special reference to the meaning of human life. It is a piece of thoroughly unscientific mysticism to talk of tapping the subconscious in order to get into contact with the absolute mind. Such a procedure is like going into a dark cellar to get a look at the sun. Compared with our finite personalities, an absolute mind must be an intense and concentrated intuitive consciousness, a super-personality.

Whatever does not enter into, and is not fused with the conscious selfhood of man we may consistently relegate to the realm of the organic or physiological life. Whatever is wholly and persistently unconscious in the psychophysical field properly belongs to the bodily side of the self.

One must beware of introducing súrreptitiously into a consideration of the empirical nature of the individual a metaphysical doctrine which has been fashioned to account for the interrelationships of mind and body in terms of a panpsychistic meta-

[8] Since these paragraphs were written there has been a great increase in this tendency, due to the psychic strain, anguish and bereavement wrought by the World War. One may sympathize deeply with the mental distress of millions; but that is not a good reason for losing one's head over spiritualism and telepathy.

physics. The problem of the relation between the unity of the self and the facts of growth, alteration, and aberration in the empirical psychophysical life is rendered no whit less mysterious by changing the terms from those of body and mind into those of conscious self and subconscious self. Indeed, I think the problem is thereby hopelessly complicated and confused. I may believe that the physical order does not exist in absolute independence of mind and purpose, and that in personality is to be found the best key to the meaning of the world process; but such a belief need not, and should not, be based on the hypothesis of the subliminal self.

The subconscious nuances, the various normal and abnormal complexities, of selfhood, must not blind us to these cardinal facts: 1. Personality is a continuous principle of conscious and growing organization of psychophysical impulsions; spiritual as well as biotic. 2. The key to the practical growth and the knowledge of personality is to be found, *not* in the unconscious, but in the clearest and fullest exercise of reflection and rational willing. We know the *rudiments* of personality in our awareness of our various impulsions as constituent members of our selfhood. The more persistently we purpose and live in the light of intelligence the more fully do we become, and know ourselves as becoming, personalities.

CHAPTER XXVI

MULTIPLE PERSONALITY

There is another class of facts which seem to militate against the belief in a personal unity of consciousness. These are the pathological facts of diseased and disintegrated personalities; of lapse of the sense of individual identity for considerable periods; of alternating selves which may exist contemporaneously in the same individual body; and of successive selves likewise inhabiting the same body in succeeding intervals of time.

Of these phenomena of diseased selfhood there are a number of classic and well-known cases. Such are Professor Binet's Leonie, with her two additional individual characters which differed from her ordinary selfhood, and could be induced by suggestion and hypnosis; Professor Janet's Felida, and Dr. Weir Mitchell's Mary Reynolds; more recently, Dr. Morton Prince's Miss Beauchamp, who, he states, manifested during the years in which he studied her case, four well-marked and separate selves, B I, B II, B III, B IV; with, at times, still other minor variants. These selves oscillated in their control of Miss Beauchamp's body and actions. Although mutually hostile they did not, for the most part, know, without the intervention of perceptive symbols, what one another felt and did. In other words, each appeared to be a private self. They communicated with one another by letter. At times, two of them struggled for the mastery. Sometimes the fight was three-cornered. And one of them "Sally" (B II) claimed to have developed the power of direct intuitive knowledge of the others. These "selves," as described by Dr. Prince, were not only distinctive in character, but conflicting and consciously hostile in their attitudes towards one another. This case then is a very striking instance of "alternating personality."

A second type is that of "lapse" and "succession" of personalities. Typical of these are the cases of the Reverend Ansel Bourne and the Reverend Thomas C. Hanna, both of whom wandered away from their homes and occupations, forgot their

individual identities, and became, for a time, other selves with somewhat different names and other occupations.[1]

More extreme instances of the lapse of personal identity are furnished by the permanent aberrations of insane persons who have believed themselves to be, for instance, Jesus Christ, Julius Cæsar, or Queen Victoria, or even a Leyden jar charged with electricity.

If the actual self be thus subject to dissociation, aberration, and complete loss of the sense of personal identity, can there really be a persisting unity in human personality? I hold that such cases do not invalidate our theory of personal identity. The instances rather enforce, by extreme examples, the principle which is substantiated by the normal history of selfhood, when considered in relation to its elemental instincts, and emotions. That principle is as follows: the empirical self is a complex, imperfect, and developing organization of experiences and purposes, which depends upon and increases through the activity of the power of rational synthesis by which the congenital and modifiable psychical elements of life are fused into a more unified and enduring system.

Personality is a dynamic and progressing unity, not a static and ready-made unity. Personality is an achievement with many grades and stages. The unity of the empirical self is won by organizing the physicopsychical elements of individuality. The pure or formal ego is the power of synthesis, through which this organization is effected. To speak of alternating and successive "personalities" is a misnomer, since, when these phenomena of diseased individuality are present, the self is in very unstable equilibrium, and a genuine personality, in the full sense of the term, is not in evidence. Special subsystems or clusters of impulses and feelings have the upper hand, and the self is in a state of disintegration.

It may be maintained that, in such cases, the individual body is associated, either contemporaneously or successively, with several distinct "souls"; and that, in the case of Miss Beauchamp, for example, the struggle between B I, B II, B III, and B IV was a contest for exclusive possession of this body by the several souls. This theory is a modern restatement of the ancient doc-

[1] For the Bourne case see William James, *Principles of Psychology*, Vol. i, Chap. 10. For the Hanna case see Sidis and Goodhart, *Multiple Personality*.

trine of demoniacal possession.[2] Now, if this hypothesis afforded the most probable explanation, one would expect the phenomenon to be more frequent with human beings than as matter of fact it is. The hypothesis does not fit well the facts of lapse of identity or alteration of personality. For many of these cases, such as that of Ansel Bourne, show a beclouded, but very evident continuity or sameness in the so-called successive selves. If the souls are really separate and distinct individualities, it is difficult to understand why that separateness and distinctness of individuality which belongs to several souls should comport with the identity or selfsameness of the inhabited body. The great mass of the facts of psychophysiology point to the truth of the view that the body is an important contributory factor in the psychical life of the individual. Indeed, the terms "soul" and "personality" are used in a very loose and vague sense when applied to pathological cases. Finally, the facts are susceptible of a different interpretation; one more in harmony with the variegated and complex character of our normal self-experience, particularly with the part which is played in normal life by conflicting feelings and impulses. These pathological cases of self-aberration are instances in which the power of personal synthesis or organization is relatively ineffectual against the disintegrative power of certain partial systems or subsystems of feelings and impulsions, which have gained an abnormal and overmastering intensity of expression at the expense of other factors in the life of the self.

In Dr. Prince's account of the Beauchamp case he tells about his hunt for the real Beauchamp amidst the struggles of B I, and B IV and the upsetting interventions of the mischief making "Sally" (B II). He outlines the genesis of Sally, and shows how she was finally "squeezed out." At first B I the "saint, the dignified, patient, self-repressing emotional idealist," seemed to be the normal self; then, since B IV the "woman," with her vigorous self-assertion, seemed the healthier type, he concluded that she must be the normal self, and B I must be suppressed. Finally, the "real" Miss Beauchamp was formed by the synthesis of B I and B IV and the elimination of B II (Sally or the "Devil").

Now, in regard to this very interesting case, it seems to me that Dr. Prince's own account bears out the view that the normal

[2] This is the view advanced by Dr. William McDougall in his work *Body and Mind.*

or "real" Miss Beauchamp had never existed at all before the synthesis so skillfully and successfully facilitated by his treatment. Miss Beauchamp had probably never achieved a relatively stable and well-organized selfhood since adolescence. Her life had been the theater of an alternating succession of conflicting impulsions. The details of her early life are very incomplete but, as given by Dr. Prince, they bear out this view. The "Dissociation of a Personality" is the story not of the restoration of an older and disintegrated personality, which was once a harmonious and effective reality, but rather of the organization, one might almost say the creation, of a personality. Miss B. had never been a well-integrated personality. Her case was one of arrested development. Her emotional-volitional condition was a commingling of childhood, adolescence, and maturity. The Sally self was notably that of a child.

This case is a striking illustration of the principle that an actual personality is an organization of ideational, affectional, anl volitional elements. Her alternating "selves" were composed of various fragmentary subsystems of feelings and impulsions, which had become so persistent and were so in conflict with one another that they could not readily be made to form one harmonious system or permanent self. In popular usage there may be no great harm in calling each of these groups of impulsions a self or personality; but in psychology and philosophy such a usage is very misleading. A true self exists only when there is a coherent and conscious unity and continuity in the individual's life and a consequent coherence and continuity in his purposes and deeds.

So-called alternating and conflicting selves are extreme instances of features that are familiar enough in normal life. The actual self is never an entirely fixed and unyielding system of affections and conations. It is more or less fluid and plastic. It shows a variety of aspects, according to the relations in which it operates. No one type of attitude, no single line of action, feeling or thought, can be said to express the fullness of a normal selfhood. A man shows different aspects of his nature or personality in the family, in business, in society, in church, and at play. Very frequently we are surprised when we see the hard-headed business man or the sober-minded scholar in his home or on an outing. We constantly find it necessary to revise our esti-

mates of individual characters. We are quite often surprised at the suddenly manifested power in ourselves of emotions, interests, and ideas, that we had supposed dead or vanished. There come times in the life of every redblooded self, when, under the stress of some powerful impulse or emotion, such as anger, fear, love, or rivalry, he is not "himself" even as he had supposed himself to be from long and intimate acquaintance. Gusts of passion or long-forgotten cravings sweep over and sometimes submerge the humdrum work-a-day self.

I have set down these familiar and obvious matters in order to enforce the principle that the striking cases of disordered personality differ only in degree and persistence from the ordinary experiences of the normal self. The empirical self is always a more or less unified complex of psychical impulsions. The raw materials of selfhood are specific impulses, desires, emotions, percepts, and images. Those always tend to form some sort of system, whether permanent or temporary. In the cases of diseased personality the controlling principle of rational synthesis is not effective against the abnormal strength of some subsystem of impulses. That it is possible to integrate the various elements of the biological individual into a coherent unity of purpose, feeling, and action, is evidence of the activity of the principle of synthesis by which the empirical personality is gradually being formed. The most obvious and common feature of these cases of abnormal selfhood is the break in the continuity of memory, which is, of course, the basis of empirical or conscious self-identity. The conditions would seem to indicate a high degree of nervous instability or disintegration, symptomatic of nerve fatigue and autointoxication. Explanations of such disintegration in terms of the dissociation of neurone systems in the brain are the most plausible physiological explanations.

The abnormalities of personal life do not disprove the functional activity in the empirical self of that synthetic principle which is the source of our feeling of personal identity and the power which effects the progressive organization, into a rational self, of the variety of feelings and impulses which constitute the crude materials of the highest personality.

There are three distinguishable phases of selfhood: (1) The *empirical or actual self;* this is the concrete and variable, and only partially organized, complex of impulsions and emotions,

purposes and ideas, which make up our everyday experienced and observed selfhood. This is the self which others see, but from a different angle than we see it from. This self may be further analyzed into the social self, into various social selves in fact—the business self, the bodily self, the religious self, and so forth. Of course, these latter selves are but partial aspects of the total empirical self. (2) The *formal self* or *pure ego*. This is the active and enduring principle of synthesis which organizes the empirical elements of selfhood into a unity and forms the principle of continuity on which memory depends. It is consequently the basis of the consciousness of personal identity. (3) The ideal self. This is the self as developing personality; the as yet but imperfectly realized integration of the self's deepest potencies and interests. It is the spring of new cognitive, moral, æsthetic and religious valuations. This is the purposive and dynamic self, the servant and creator of new values. It is the "ideal self" which plays such a major rôle in idealistic metaphysics—in Kant, Fichte, Hegel, T. H. Green, Bosanquet, Bradley and Royce. Inasmuch as the pure ego is a mere formal abstraction, and the empirical ego is a true personality only in the degree in which ideals are operative in it, the ideal self is a dynamic entity, a field of real possibilities.

This notion that the ideal self, the possible self, is more significantly real than the already attained empirical ego is a favorite idea with the great poets, as well as with the other great spiritual teachers—with none more so than with Robert Browning. I have space for but one citation:

Not on the vulgar mass
Called "work," must sentence pass,
Things done, that took the eye and had the price;
O'er which, from level stand,
The low world laid its hand,
Found straightway to its mind, could value in a trice;

But all, the world's coarse thumb
And finger failed to plumb,
So passed in making up the main account;
All instincts immature,
All purposes unsure,
That weighed not as his work, yet swelled the man's amount;

Thoughts hardly to be packed
Into a narrow act,
Fancies that broke through language and escaped;
All I could never be,
All, men ignored in me,
This, I was worth to God, whose wheel the pitcher shaped.
—*Rabbi Ben Ezra,* 23–25.

CHAPTER XXVII

MIND AND BODY

One of the fundamental problems in the metaphysics of personality is the relation of the individual mind to the body which it inhabits. Is the body simply an external tool of the real self, a useful but not indispensable adjunct and instrument of the true personality? Or, second, is the body the true reality of which the mind is a by-product? Or, third, is the body simply the phenomenal expression of the mind, which alone is truly existent? Or, fourth, does the body participate in and contribute to the essential nature of the self? These are the four chief alternatives, represented respectively by dualism, materialism, spiritualism or mentalism, and psychophysical individualism.

The common-sense theory of the relation of mind and body is qualitatively dualistic and interactionistic. Mind and body are thought of as two realities differing in kind, but interacting. The mind is the "inside self" which feels, thinks, and strives; the body is the "outside self" through which the inner self communicates with the world at large. Common-sense thinking does not offer any theory as to how these two diverse realities interact. It represents the Cartesian and Lockian dualism become a tradition. "Common-sense" always embodies ancient philosophies. The common-sense view latently contains both dualistic and monistic elements. Animism or hylozoism survives in modern popular thinking on this subject.

I. Dualism

Dualism holds that mind and body are two disparate and separable entities. Each may exist independently of the other. There are mindless bodies and bodiless minds. Dualism is based, in the first instance, on the patent contrasts between mind and body: mind is not extended, cannot be divided, weighed or meas-

ured by physical means, knows itself; that is, it is a self-related, self-conscious, immaterial unity; body is extended in space, can be weighed, measured, and divided; is not a unity for itself but only for another, that is, for a mind. Descartes neatly summed up the contrast when he said, "the essence of mind is thought, the essence of body is extension." It is noteworthy that Spinoza based his doctrine of parallelism on the dualistic theory of Descartes, conceived as rendering unintelligible and impossible the interaction of mind and body. The parallelistic theory has been strengthened by the modern doctrine of the absolutely closed and self-sufficient character of the physical series of causes and effects considered as energy-content. Every occurrence in nature is to be explained in terms of the mechanical equivalence of causes and effects. Nothing but precisely calculable factors can be admitted into the sequences of physical events. The physiological activities of the human organism are to be explained in the same way as other physical processes. When I move my arm to write this sentence the entire movement and its resultants are just parts of a mechanical series of transformations of physical energy. My body is a peculiarly complicated piece of physical mechanism. In it outgo and intake of energy must be exactly equivalent, and when outgo begins to increase cumulatively over intake the process of decay and death is already setting in. There is thus no place in the sequence of transformations of physical energies for the influence of mind.

The absolutely closed and self-complete character of the mechanical sequence of causes and effects in the human organism is held to be a corollary of the principle of the conservation of energy. Now, as a working method in physical science, this principle means only that, within the limits of any finite closed material system, the energy content or sum total of energy remains constant through all the qualitative transformations of energy that may take place within the closed system. The mechanistic conception of the organism, while undoubtedly a most valuable methodological standpoint in the investigation of vital processes, has not been fully established as the whole story about life. But even though it were established, it would not follow that the physical systems which constitute human bodies are absolutely closed mechanical systems, or that they have no other meaning than that which belongs to parts of a world mechan-

ism. If the body is a machine, it does not follow that the mind may not direct the machine. The validity of the principle of the conservation of energy within the limits of conventionally closed physical systems of energy, that is, of such systems considered in abstraction from minds, is not a sufficient warrant for extending the application of this principle to the concrete totality of the real universe, which includes minds and their operations. The physicist abstracts from the concrete world the activities of minds, and makes the remainder the sole object of his investigations.

The same amount of energy, measured in terms of physical units, may have very different psychical values. The same amount of energy, for example, that goes into the writing of this chapter would, if expended in the fall of a brick on my head, have, I fondly believe, a very diminished result in terms of human value. The characteristic culture-feature of applied science, industry, and the fine arts, is that in these activities the human mind does direct the course of physical energy to realize enhanced psychical values, hedonic, ethical, æsthetic, etc. This power of guidance is the source of the technical progress that makes civilization possible. It is in its power to direct physical energies into channels that sustain the fruition of human values, that the mind's creative capacity is seen. This constitutes mind's uniqueness in the order of nature. The conservation of physical energy may be the fundamental condition of its direction and application by mind.

It may be objected that this directivity, by which psychical values are created and conserved, means the application of energy; that this energy of direction must either be drawn from the constant sum of physical energy in the natural order, or be an injection *ab extra* of energy by the mind into the physical system; and that the latter hypothesis is both inconceivable and contradictory to the principle of the conservation of energy, while the former hypothesis simply makes the mind an incalculable concentration of physical energy. If mind be not a form of physical energy then it cannot influence the course of physical energy. It takes energy to alter the direction of energy. The question of the conceivability or imaginability of the influence of mind on body I shall discuss later. As to the question of fact, I hold that there is no fact which has better empirical attestation than the reciprocal influence of mind and body. In health and disease, in

action and repose, the fact is abundantly and continuously experienced. The scientist or philosopher who denies the fact, in the interest of a theory, is so wedded to his own prejudices dressed up as *a priori* conceptions that he is blind to the plain facts of human experience. To say that mental guidance of bodily energies contradicts the law of the conservation of energy is to beg the whole question; it is to assume offhand that the ultimate system of things in its totality is a closed mechanical system. It is to assume that the physical universe is a self-existent whole, and that every so-called psychophysical organism is nothing but a finite physical machine within the absolute or world machine.

It is in accordance with the apparent facts to say that the mind is not a form of physical energy; but that it is a unique kind of activity, which can direct physical energies without adding to or subtracting from the quantities of these. The human values of the natural process which are extracted, or created, if you like the term better, by mind are not measurable by physical standards. Therefore, their appearance, maintenance and augmentation need make no difference at all in the calculable relations of physical processes. But the appearance, maintenance, and augmentation of these psychical values makes all the difference in the world in the humanistic meanings of the sum of things. The real world is one in which the laws of behavior of physical things are, in part, at least, subservient to the realization of psychical values. Any world concept short of this is incomplete and inadequate.

But is it not inconceivable that an unextended, imponderable, immeasurable entity should be able to influence a system of extended, ponderable, and measurable particles, and *vice versa?* If by "inconceivability" be meant that we cannot form a satisfactory picture or image of the process in question that is true but inconclusive. One cannot form an adequate picture of how a living embryo carries in itself the predetermination of the structures and functions of a developed organism! One cannot form an adequate picture of how gravitational attraction acts, or of how radioactive matter goes through all its transformations, or even of how one atom or electron acts on another! Our scientific theories and explanations consist, to a very large extent, in the interpolation of crude and inadequate pictures or images, to account for the intermediate or imperceptible steps in processes

which, taken in the rough or as wholes, are unquestionable and familiar. Our scientific, no less than our popular, thinking is dominated by spatial metaphors.

II. Psychophysical Parallelism

The difficulty of imagining in detail how mind and body can interact, together with the assumption of the closed and self-sufficient character of the physical series or sequences of causes and effects, have led to the revival and extension of the theory of psychophysical parallelism, which was first enunciated by Spinoza. This theory is based on an extreme ontological dualism or qualitative opposition of mind and body. It seemed a simple and consistent way out of the difficulties of Cartesian dualism. And, in its revised and extended forms to-day, it seems to square with the doctrine of the conservation of energy; and to fit in, as no other theory does, with the facts and theories of neural physiology and psychophysics.

As it has been formulated in recent times the theory of psychophysical parallelism has confused two, and sometimes three, very different conceptions. It may be taken in the restricted sense of *psychoneural* parallelism, the wider sense of *psychophysiological* parallelism, or in the widest sense of complete *psychophysical* parallelism. When the psychologist says that to every mental process there corresponds a nerve process ("no psychosis without neurosis"), he is employing the conception of psychoneural parallelism. It is perhaps true that no mental processes do take place without corresponding nerve processes of some sort. The evidence for this assumption is very strong, certainly strong enough to make it a good working hypothesis in psychology. But a general correspondence of conscious processes with certain complex neural processes does not necessarily exclude interdependence. And there is no conclusive evidence that a mental process corresponds to every nerve process. Indeed, very little is known about the character of the elementary nerve processes. If recognitive memory and the selective utilization of previous experiences to effect novel combinations are signs of the presence of mind, then there are many indications that a great part of neural activity is unaccompanied by conscious mental processes. In man, and still more in animals, a large part of the physiological activities are

carried on without any accompanying consciousness. Elaborate activities of metabolism, circulation, growth and decay take place without any awareness thereof.

The mind seems to function in dependence on the central nervous system. In the ascending scale of complexity of animal organization, there is a correspondence between the degree of organization of the nervous system and its mass relatively to the mass of the entire organism, and the degree of mental activity. The more complex and highly integrated the central nervous system the richer and more unified and continuous the activity of consciousness. The facts of comparative physiology and comparative psychology point to a specific integration of the nervous system as the condition for the functioning of mind in its perceptual and volitional relations to the physical world. The evidence is thus very strong for a limited psychoneural correspondence. But this correspondence cannot be carried out in minute detail. It is not a perfect parallelism. It is at present supposed that the neurone is the unit of nervous structure and activity, but this theory may be supplanted at any moment by another. There seems to be an integration of elemental nerve processes in the central nervous system. But, as a matter of fact, current theories as to the elementary neural activities and their modes of integration are based on a supposed analogy between them and the processes of consciousness. Inasmuch as more is known in regard to the character of conscious processes than of cortical processes, there is no warrant for making speculative analogies the basis for a theory of psychoneural parallelism which is not in accord with the empirical nature of consciousness itself. The fact that nerve activity must reach a specific degree of complication and integration before such a conscious process as perception ensues *is a strong argument against a complete psychoneural parallelism.*[1]

Mental elements, such as sensations, feeling-impulses, percepts, and memory images, do not really exist apart from the integrated mind or empirical unity of consciousness, which we analyze into these artefacts. And there appears to be nothing in the shape of an elementary nerve process that can be regarded

[1] The facts in this connection are formulated in the psychophysical law or Weber-Wechner law of the relation of stimulus to sensation. See Titchener, *Experimental Psychology*, Vol. II, Introduction, etc.

as strictly parallel to the activity of attentive self-consciousness. Precisely the most significant feature of mental series is its reflective or double character. We have not only mental series but *awareness* thereof as a series, not only consciousness but self-consciousness. Let us assume, for the purposes of illustration, that, by the use of a hyper-microscope and a series of mirrors,[2] a man might perceive his own brain states and imagine him perceiving the brain state parallel to his perception of his own brain state. Then parallelism lands one in the absurdity of an infinite series in which perception forever chases in vain its partner brain state. My awareness of the perception of my own brain state, as parallel to the state of consciousness which perceives it, would involve, in the instant of the perception of the parallel brain state, another brain state parallel to the perception of the parallelism between my previous brain state and the brain state itself. Hence, if parallelism were literally true there could be no such thing under any conditions as a perception of parallelism, and self-consciousness and continuous memory would be inconceivable.

There is a general correspondence between the integration of the central nervous system and the unity of the mind. "The integrating power of the nervous system has in fact in the higher animals, more than in the lower, constructed from a mere collection of organs and segments, a functional unity, an individual of more perfected solidarity." [3] This functional unity corresponds with the psychic unity. From the biological standpoint, the cerebrum may be regarded as the ganglion of the distance-receptors, and consciousness as an adjunct to the centers which exercise control over reflexes. Consciousness is a center of indetermination which intervenes in reflex activities to enable the organism to adjust itself to the environment, by reactions involving factors of greatly increased range in space and time. In the technical language of the physiologist, consciousness controls the coördination of "distance receptors" and "consummatory reactions." The cerebrum is the immediate instrument of this control and hence the immediate basis of consciousness. But this control function of consciousness makes it a difficult and artificial theory, even from a

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[2] This illustration was suggested to me by a similar one employed from a different standpoint by Professor C. A. Strong in *Why the Mind Has a Body.*

[3] C. S. Sherrington, *The Integrative Action of the Nervous System,* p. 353.

purely biological standpoint, to regard the processes of mind as inert concomitants of cerebral functions, as a series of episodical and mysterious illuminations which, accompanying cerebral activities, yet neither affect these in any way nor are affected by them. From the standpoint of a strict psychoneural parallelism mind or consciousness is both otiose and inexplicable.

Psychophysiological parallelism would mean that to every sort of physiological functioning there is a corresponding mental process. The arguments which tell against a literal and detailed psychoneural parallelism tell with even greater force against this form. If mental functioning be conditioned by a central nervous system it follows that there can be no mind where there is not even a rudimentary nervous system. Of course it is possible that protozoans and even plants have minds. They do not seem to show clear signs of true memory or of conscious adaptation. They may possess evanescent sentience like the body monads of Leibniz. Possibly intelligence or mind is coextensive with life. Possibly the vital principle is identical with the psychical principle; I do not see how one can come to a definite conclusion on this point. The mind may be the more clearly conscious and highly organized form of the rudimentary intelligence which is the organizing principle of life; or it may be a qualitatively different entity. I incline to the latter view.

The third form of parallelism, psychophysical parallelism, in the strict sense, is hylopsychism or panpsychism—all matter is "besouled." It would require the assumption of atoms of mind-stuff, corresponding with the ultimate units of matter or energy. It, and indeed all forms of strict parallelism, imply that the more complex and higher forms of mind are made by the aggregation or compounding of discrete mental particles; and the principles of aggregation, in the last analysis, are conceived on the analogy of the arrangement of mass particles in spatial configurations. But the unity of a mind and its continuity are of a different order from any series of merely physical configurations. A mind is not a mosaic of atoms of mind-stuff. Indeed parallelism is only a transitional hypothesis. When thought out it lands in either—(*a*) materialism or epiphenomenalism; or (*b*) Berkeleyan idealism, spiritualism or mentalism (the doctrine that only minds are real); or (*c*) agnostic monism, the doctrine of the unknown third; namely, that the physical and mental in series are diverse mani-

festations of one unknown reality, which is neither the sum of mind and body nor identical with the character of either when taken by itself.

(*a*) *Materialism* regards mind as a product of physiological activities—an epiphenomenon or reflection thrown up by certain highly complicated forms of physicochemical process. Materialism does not square with the plain facts of experience, and it conflicts with fundamental principles of the theory of knowledge. As we have before argued, it is just as onesided an error to affirm the independent existence of a physical world out of all relation to experience and experiencers, but which causes these to exist, as it is to affirm the existence of minds out of all relation to a physical world. We can know nothing of the existence or nature of a world supposed to be out of all relation to percipients. The real objects of our physical experience consist of the socially accessible or public realm of perceptions, actual and possible. The real physical world is not the system of scientific symbols devised by the scientific imagination to facilitate more exact description and calculation of certain highly general aspects of the perceived physical order. The primary reality of the world is not to be found in atoms, electrons, and ether, but in the system of actual and possible public experience. In this system there are two constant factors —neither of which is reducible to the other—the percipients for whose perceiving and relating activities the world exists as a public realm, and the perceived and understood qualities of this world. The real world is a system of experiences in relation, which involves and includes experiencers. The world-whole is an organized totality of objects of awareness and centers of awareness.

Let it be admitted, as a plausible hypothesis, that the invariable condition of conscious functioning is a specific complex of physicochemical activities. Let it be further admitted that specific variations in the processes of consciousness may be invariably conditioned by specific chemical differences. Let it be admitted that, if our knowledge were only complete enough, the *physical* differences between Shakespeare and the grave-digger in Hamlet would be found to be strictly correlated with the *mental* differences. It does not follow that physicochemical forces are the sole and ultimate reality, and that they suffice to explain mind. To assert such a consequence would be to ignore the psychical and spiritual values which, as data of immediate experience, are asso-

ciated with these specific physical differences. The physico-chemical conditions of conscious and rational activity are unique conditions, just because of this association. The logic of the argument, which would ignore the psychical values associated with certain specific physical activities, is just as bad logic as that which would deny that psychical processes are conditioned by certain physical processes. The former are conditioned by the latter, but there is no good evidence that they are caused by these alone. The adequate view is one that takes experience in its organic, or rather superorganic, totality. The key to the interpretation of experience as a whole lies just in the definite actualities of intelligent apprehension and control of physical energies for the production and maintenance of human values; this key is found and used in the harvest of beauty, order, social progress and individual self-fulfillment through science, morals, art and personal relations which human cultural activity yields. The intellectual, moral and æsthetic values, distilled from nature by mind, are indubitable facts of experience. A world which can and does yield these values is much more than a merely material system. The so-called opposition between facts and values is really a conflict between special spheres of values; for example, between the values of a mechanico-causal explanation and those of a humanistic interpretation of nature. But these conflicts are internal to the whole realm of factual-worthful experience. All fact has value of some sort, and all values must belong to the total world of fact.

Selves are implicated in the physical order. But just as truly is the physical order implicated in the lives of selves. It would not be misleading to say that selves are the offspring of the physical order, provided this statement be supplemented by the converse one that the whole meaning of the physical order and of knowledge thereof includes, as its most significant feature, the formation and fruition of psychical individuality. The increasing adequacy of our knowledge of nature is the increasing insight into the rich and vast individuality of a universe which at its upper level is a systematic and living whole of finite and progressing individuals. Man, as intelligent, self-directing individuality, is truly the microcosm. An individual is a maximum unity of diverse and complementary qualities or powers. The world is a psychophysical organization; and the destiny of man, as a psychophysical individual, is by knowledge and action consciously to unite himself

with the world, and in so doing, at once to reflect the cosmos in his own being and to expand and harmonize that being. Selves are centers in which the meaning of the whole process of nature becomes consciously concentrated. The total process of nature thus wins a multitudinous awareness and enhancement. Its significance is revealed and enriched by its multiplication in new individuated centers of value. The world of selves is a world of psychophysical individualities, in which one can read the prevailing tendency and meaning of nature.

(*b*) A second way of escape from dualistic parallelism is offered by that form of *spiritualism* or *idealism* so persuasively expounded by Berkeley. I prefer to call this doctrine "mentalism" or "idealism," since it assumes that only mental processes are real. I shall not enter here into an extended critique of mentalism. In Book I, I have already discussed some of its weaknesses. The following is a summary of objections to it: (1) If all bodies are only the effects of the direct action of the Divine Spirit on finite spirits, on what grounds can one account for the peculiar warmth and intimacy of the feel of his own body in contrast with all other bodies? (2) What is the relation between my spirit or yours and the Divine Spirit? Are we but thoughts in the Divine Mind? (3) Whence arises the contrast between my mind and my body and between my mind and all other bodies, if all bodies are but impressions made on my mind by the Divine Mind? (4) If bodies have no sort of independent existence why should it be necessary for me to infer your mental existence and behavior from a group of sense qualities impressed on my mind by God, but which, nevertheless, are in many cases very equivocal in the clews that they give me to your mental attitudes? (5) What is the relation between your body as it exists for you and as it exists for me? It cannot be the same body, since for you it is the sensory complex caused in your mind by God and for me the quite different sensory complex caused by God in my mind? In brief, Berkeleyan idealism raises more difficulties than it solves.

(*c*) The third ontological hypothesis, *agnostic monism,* which asserts that mind and body are the double aspects under which the unknown substance of things is manifested, fails to explain in any fashion the concrete relations of mind and body. To say that mind and body are parallel manifestations of an unknown third something is to take refuge in a mystery and an abstraction. It is

simply to re-assert that mind and body are parallel and that the parallelism is the expression of something—we know not what.

III. Psychophysical Individualism

The element of truth which is expressed badly in the "double aspect" or "unknown third" doctrine of mind and body is the *correlativity* or *functional interdependence of mind and body*. A mind is a different and higher kind of unity than a body, nevertheless there is a functional interdependence between them. Whatever physiological complex be the indispensable basis of mental functioning, in our empirical order, whether it be a neurone system or, in the case of more rudimentary minds, a simpler system, the mind and its bodily basis, although distinct, are inseparable. There are no empirical grounds, barring for the present the consideration of spiritistic phenomena, which give us the least inkling as to how a mind may function apart from a body. On the other hand a physiological system which is functionally coördinated with a mind is *ipso facto* different in character and results from one which is not thus coördinated. Whatsoever physiological system may be immediately organic to a mental self is qualified by that organicity. Therefore, it is quite as incorrect to say that the sole causes of mental activity are to be found in the chemical processes of the body, as it is to say that the mind can function without a body at all. The actual self is a psychophysical individual, in which mental action is conditioned by, and conditions, bodily action. Some bodily processes seem to give rise solely to other bodily processes; but some bodily processes plus mental processes give rise to other mental processes plus further bodily processes. An organism and a mind, which is functionally coordinate with it, together constitute a specific or unique kind of machine which I call a psychophysical individual. The interaction of mind and body cannot be of the simple type of mechanico-causal interaction. There are no measurable constants or units of mental energy; there are no mechanical equivalents for thoughts, purposes, and ideals. Hence, the interaction of mind and body must be that of reciprocating factors in a single system—an *individuality*. We have seen that in organisms the sum total of their vital processes seem to be the expression of what I have called the principle of organic individuation, the vital principle. Whether

the latter principle is to be identified with the individuality of mind I do not know. Certainly the most concrete, rich and unified type of individuality, of which we have experience, is the human individual which is psychophysical. In fact, all our concepts of individuality, and their application to lower, and conceivably to higher, individuals than man, are based on either observed or imagined analogies between the objects to which these concepts are applied and human individuality. The reflective analysis and the synthetic extension of self-intuition by the human individual is the basis of all our applications of the concept of the individual, whether it be to electrons, atoms, molecules, organisms or to supermen, angels and God.

The individuation of the bodily organism is the basis for the progressive realization of the mind's identity-in-difference or individual unity. Whether or not there be organisms devoid of sentient souls, the unity of the organism represents, in its successive ascents towards more complex individuality, the instrumentality by which the mind finds itself in commerce with the world in its work of self-organization. Teleological interdependence does not simply supervene upon mechanism. The latter is everywhere present and subordinate to the realization of psychical values. This is what I mean by teleology—that, as a matter of fact and principle, reality is a living system in which *values* are constantly being produced and conserved. In the functional unity of mind and body we find an empirical example of individual teleological system.

The real personality is not identical with the body, nor even with the central nervous system. But the personality is dependent, for the sensory materials of its inner life, and for its modes of interaction with the external or physical order, upon the functioning of the nervous system. Probably the nervous system and the whole body are but highly complicated physicochemical systems for the transformation of the more general forms of physical energy into physiological energy.

The mind is not a physical substance, but it is conditioned in its operations by its association with a physical complex. Mind is not extended in space in the mathematical sense, but it is localized in and holds transactions with the world through a spatial complex. The deepest source of the difficulty in accepting psychophysical interaction lies, as has been effectively shown by Bergson

in his brilliant work *Matière et Mémoire,* in the artificial and overdrawn contrast between body as extended in space and mind as unextended, which found its first clear statement in the Cartesian philosophy, but which has its roots deep in man's practical need of isolating and analyzing matter in order to act upon it. But actual bodies are not purely homogeneous spatial magnitudes. They are heterogeneous or qualitatively diverse dynamic complexes. They have finite extensity and finite divisibility. They are specific individuals or clusters of energy-centers. Pure homogeneous geometrical extension is an intellectual abstraction from the concrete space world. Actual bodies are concrete extensities. They are localized dynamic systems of action and reaction in the total system of forces which constitutes the physical world.

Physics is gradually establishing, on surer foundations, the view that mass and spatial magnitude are phenomena of centers of activity. Physical reality is a vast system of motions going on at an indefinite variety of rates, and these motions are the expressions of the dynamic interrelations of centers of activity. Whether or not all energy, mass and inertia can be stated in terms of electron charges, certainly the triumph of the atomic theory of electricity has brought increasing evidence for the dynamic theory of matter. Inertia or impenetrability is the most fundamental property of matter. The inertia of an electrically charged corpuscle appears to be due to its motion in an electromagnetic field, and this suggests strongly the theory that the whole of the inertia or mass of bodies may be due to electricity. "We regard the atom as built up of units of negative electricity and an equal number of units of positive electricity." "Mass changes with electric charge, for example, when a single particle moves in a magnetic field the mass in the region round about changes. Tubes of force carry ether and ether has mass. The electric particle, when it moves, carries along with it its lines of force which grip the ether and carry some of it along. When an electric particle is moved the mass of ether has to be moved and the apparent mass of the particle is increased. The mass of the electrical particle is resident in every part of space reached by its lines of force. The electrical body may be said to extend to an infinite distance." "Wherever there is potential energy there is mass." "We have confined our attention in this article to the view that the constitu-

tion of matter is electrical; we have done so because this view is more closely in touch with experiment than any other yet advanced. The units of which matter is built up have been isolated and detected in the laboratory, and we may hope to discover more and more of their properties."[4] The electric theory of matter postulates two factors to explain matter in the ordinary sense. These are discrete units, the electrons; and a continuous medium, the all-pervading ether, an immensely tenuous, but strong and elastic fluid, capable of sustaining great variations of tension or stress and strain. From this standpoint the basis of difference in our sensuous matter are variations in the tension of the ether; in other words, variations of stress and strain, and, consequently, of motions in the ether.[5] Lodge surmises that the electron may be a tension in the ether. I have cited this theory, both because it is the most plausible theory of matter at the present time, and because it illustrates two points fundamental to a philosophy of nature: (1) that any theory of the physical world, to be satisfactory, must include both discreteness and continuity. Atoms and electrons must have a medium; whether this medium be called ether of space, or space itself, it must be something continuous. The interaction of things across nothing is unintelligible. If matter have a granular structure, then there must be a continuous medium in which these granules interact. There must be lines and fields of force that irradiate in all directions from them. (2) The electrical theory of matter, reducing, as it does, the phenomena of mass or inertia and weight to stresses and strains or motions and tensions in a universal medium, furnishes a powerful support, from the field of physical research, for the view that the physical world as empirical reality is the manifestation of a system of centers of activity.

In the present connection I desire to emphasize the following points: (1) Body is to be conceived in terms of activity. It is a complex of dynamic centers. (2) Actual bodies have concrete extensities. Extensity in this sense is the expression of tension or physical activity. Homogeneous and infinitely divisible space is

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[4] Sir J. J. Thompson, article "Matter," *Encyclopædia Britannica*, 11th Ed., Volume xvii. See also F. Soddy, *Matter and Energy;* J. J. Thomson, *Electricity and Matter;* and E. Rutherford, *Radio-active Transformations.*

[5] Sir Oliver Lodge, *The Ether of Space*, especially Chap. 8, "Ether and Matter."

a conceptual or ideal construction relative to the purposes of geometry and mechanics. Actual physical space is the order of inter-relations of simultaneously existing, heterogeneous, centers of activity. (3) Hence bodies are not infinitely divisible. They must consist of ultimate centers of activity. (4) All bodies are elements in the total continuum of physical reality, which is a vast system of tensions and motions. Motion is detention, that is, release of a tension. Concrete or real space means the coexistence and interrelation of centers of activity or dynamic and mobile elements.

If it is misleading to define body in terms of inert and homogeneous space, it is equally misleading to say that mind is unextended. Mind is not static extension, but neither is body. And mental processes are not nonspatial but trans-spatial. It is time that philosophy emancipated itself from the naïve distinction between matter and spirit in terms of the contrast between the extended and the unextended. This is a heritage from Greek and mediæval thought that we can well dispense with. Visual and tactual percepts obviously have extensity. Auditory, olfactory, and other forms of sensation, likewise have extensity or bigness. Moreover it seems to me that affections and emotions likewise have location and extensity. Some are pervasive and spread all over the body. Others are narrowly localized, sharp, penetrating, and so forth. Is the mind, then, which is the center of reference for all these forms of awareness, nonspatial? Clearly, I think, the mind is in the body. It is the conscious unifier and center of tension of bodily experience. Just what part of the body it commonly inhabits I am not sure. It seems to be able to expand and pervade large parts of the whole, and to gather and condense itself into narrower compass. With the ideal or higher forms of thought-activity and sentiment we seem to be in the presence of purely unextended processes. A concept, a judgment concerning abstruse matters such as the present problem, or a clearly formulated purpose, is a maximum concentration and unification of mental activity. But even such activities as these are associated with a concretely extended body which is in relation to other extensive realities. A purpose or a plan of action are obviously concerned with the relations of the individual organism to contemporaneously existing elements of spatial reality. Such thought activities condense the past with reference to the future, but this condensation

implies coexistence and interrelation or extensity. Even such "spiritual" processes as an æsthetic emotion, a moral ideal, a religious aspiration, or a metaphysical speculation, involve the relation of the mind to coexisting realities which have relative mutual independence. Mind, as a center of concentration and awareness of relationships, has a power of controlling and penetrating, of condensing and redirecting, the extensity-factors or spatial tensions of its physical environment to such a degree that we may rightly say that mind is a trans-spatial center of action. Functioning in space it can become, in increasing measure, the master of space.

There is then, an immaterial, dynamic principle in the human self. Consciousness is not a form of physical energy; but it is at once the immediate revelation of a unique kind of energy, the energy of thought; and the intermediate revelation of other forms of energy by virtue of being a focal center of awareness, selection, rearrangement, and chosen reaction. The energy of mind is expressed in intellection and volition. These cannot really be separated, since volition involves intellection and intellection is the activity of the mind in selecting, combining and valuing the materials of experience. Thus the specific character of the energy of the mind is most adequately revealed in the rational activity of synthesis and analysis and in the forms of reflective valuation which determine choice. Mind energy, or spiritual activity, is associated with a physical machine, the body, through which it receives influences from, and reacts upon, its environment. Thus the mind, although it does not seem to occupy a definite area in space, is definitely associated with the spatial order in which it carries on transactions. The mind is the soul of a dynamic configuration in space. It is *trans-spatial,* not nonspatial. Similarly the mind, as we shall see more fully later on, is not nontemporal, but *transtemporal.* It endures through time.

Where there is no recognitive memory and selective choice, the successive phases of physical motion are mere links in an endless chain. One configuration dies away blindly into its successor. It is through selective memory that the past lives in the present, not as fatally determining it, but as reconstructed and employed by the active mind to illumine the present, and thus to aid in the conscious direction of activity to fashion the future. Just as there is no sharp break between past and present, so there is no sharp

break between present and future. The present is the future in the making. Memory is the unifying function which enables the individual in the present to control the future by the utilization of the past in the present. A being devoid of memory can have the continuity only of a succession of stages, in which the earlier always completely determine the later. Its moving spring is a *vis a tergo,* that is, a physical force. A being with memory, selectivity and reflection, by transcending its immediate present, or rather by expanding and transfusing that present from the past, is able to emancipate itself from the *vis a tergo.* Its present grows in content and meaning, and thus its future, as this becomes present, ceases to be the mere consequence of its past. A being without memory *lives* only in space although it *exists* in time.[6] Temporal relations are for it nonexistent. It cannot transcend the immediate now, and hence, for it there is no now, since a now has meaning only by contrast with a then and a shall-be. A being with memory transcends mere spatial relationships. It becomes a temporal-historical self-determining being. Memory-consciousness is the fundamental condition of selfhood and self-determination. Space is a function of immediate interaction between individua or monads, but time is a function of memory; time-consciousness is the condition of the suspension of the blind and inevitable march of temporal predetermination. In this sense to know time and change, through memory and reflection, is to transcend mere time and change in transcending mere spatial coexistence and determination.

In memory we find, then, as Bergson rightly says, a unique function of spirit.[7] It is by virtue of the synthetic or synoptic and

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[6] *Cf.* Leibniz' body-monads, with appetition but without memory.

[7] My conception of memory is not the same as Bergson's, however. Memory in its highest form I conceive to be the result of the synthetic functioning of the self which gives identity and continuity of meaning to sense images. I should place much greater stress than he seems to on the function of logical or synthetic meaning as the distinctive work of memory, in contrast with mere recollection or routine associative recall.

Significant memory works by the discovery of, and selective emphasis on, likenesses and unlikenesses, identities and diversities, whole-part relations, causal relations, teleological relations, etc.; in short by the use of *logical categories.* Even in fortuitous chains of association and recall, these logical principles operate. The great differences between random and irrelevant memories, on the one hand, and significance or relevant memories, on the other hand, is that the latter operate through significant and useful resemblances and differences, whereas the former operate through superficial resemblances and differences and thus carry a burden of useless and smothering detail. A good

selective power manifested in memory that the individual ceases to be a mere blind link in an endless chain of becoming; that he is able to suspend the fatal operation of that *vis a tergo* by which nonmental elements of reality are pushed along, combined and broken up, made and unmade.

The mind is that sort of unique and active center or focus of relationships which is able to concentrate and illuminate, with memory and awareness, the dynamical relations of elements in the system of physical nature to its own immediate organ—the body; and, through this relation to its own organism, to interpret extra-bodily relations of physical and other psychophysical centers to one another. The mind is also able to be aware of its own awarenesses, that is, to be self-conscious. It has temporal continuity and is aware of this continuity. It is a unity and a unifier which knows itself as such. Every active center in nature must be in some degree a unity and a unifier. Mind is peculiarly so, since, by reason of its bodily organ, it becomes the center of a variety and range of physical relationships to a degree such as no other thing in nature is, and since, by reason of memory and reflection, it becomes a reorganizer or redirector of the sequence of physical events. *The mind is the organism's consciousness of its actual and possible relationships in the dynamic system of reality.* Through consciousness, the organism becomes in part a controlling and an originating center of relationships. Because it can remember and bring to bear on the present situation its past recognition of relationships within the system of experience, the mind is not tied down to the treadmill of a mechanical succession. Through it the organism is freed from the bondage of mere reflex and automatic activity.

Placed temporally between the incoming stimuli which signify the action of other elements of reality on the organism, and the outgoing effectors or motor impulses which signify the reactions

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and useful memory has, as its prime condition, a high power of analytic-synthetic thinking; it selects and emphasizes relations which become instruments for recalling relevant experiences, when they are needed. Bergson, it seems to me, almost ignores this *logical* character of memory. For him the *vital urge* appears to go on more or less blindly creating and accumulating ideas, relevant and irrelevant; fortuitously rolling itself up like a snowball. There is little or no logic in it. His conception of memory is too economical; but it seems to be a natural consequence of the opposition he sets up between intelligence and intuition. Indeed Bergson's whole philosophy suffers from a defective logic or theory of mind.

of the organism to other elements of reality, the mind focuses its past experience on the present, and thus determines in part the character and direction of the organism's reactions to the environment. This determination of future reaction is no blind automatic reaction or mere reflex. It signifies a redirection of organic activity, in such ways that the content of individual experience is further enriched in meaning and scope. Operating between the organism's past and its future, the mind is able in part to determine the character of that future, to enhance its life by enlarging the scope and value of its responses or adjustments. *Memory,* the synthetic or unifying function which establishes identity and continuity of meaning; *analytic* and *generalizing thought,* which distills new meanings by analysis and synthetic reconstruction of experience; and *evaluating* and *selective choice,* are thus the supreme functions of mind. They are instruments for the enlargement of insight into the organism's own nature and the nature of its environment, and thus they are the instruments for the enhancement of psychic values through intelligent action.

The body, considered as a system of sense organs, afferent nerves and sensory brain centers, is the channel through which the mind becomes aware of those nearer and more remote environmental relationships which are significant for the life and welfare of the whole psychophysical individual. Conversely, the body, considered as a system of motor brain centers, efferent nerves, and motor organs of expression, is the channel through which mind effectuates, in terms of its consciously purposive activities, the meanings and values which it has distilled from its incoming experiences. There can be little doubt that the brain centers, as the common term in this sensory-reflective-motor arc, supply a vast, complicated, and plastic system of connections, through which mind, in its functions of remembering, analyzing, synthetizing, and recombining the elements of raw experience, is able to suspend mere reflex or automatic action; to check the fatal flow of stimulus into blind reaction, and thus, by giving to consciousness an accumulation or enrichment of sensory materials joined with an indeterminate complexity of outgoing connections, to enable the conscious mind to "throw the switches"; to divert and recombine in a variety of ways the sensory-motor nerve paths. The synapses of the dendritic processes of the cortical neurone cells and the interrelations of the main systems of nerve-fibers seem to give

structural support to this view. Physical stimulus—physiological reaction—physical change due to motor organ—thus would run a purely reflex activity. Perception—memory—reflection—or analysis and synthesis—choice—such are the intervening factors of mind which breaks the fatal chain. The diagram of a volitional process would run thus: physical stimulus—sensory neural process —awareness—memory—reflection and choice—motor neural process and muscular movement. In the cognitive-volitional arc, mind is the conscious center for redirection, selective emphasis and control. The suspension and alteration of tension and direction in the neural processes is the work of mind.

The self is a trans-spatial center of spatial relationships, and thus positively related to extensity. Through the sensory system the mind is brought into *receptive* cognitive relations with physical reality. Through the motor system it *acts* as member of the total system of things. From the extensity of sensations to the apparent inextensity of "pure" thought there is a series of degrees of passage, as M. Bergson would say, from more extensity with less tension to less extensity with greater tension. I should prefer to say that there is a passage, by degrees, from a more diffused or less integrated extensity of motions to a less diffused extensity with the highest degree of trans-spatial concentration and integration or unification. Mobile extensity is not eliminated by the higher thought processes. These processes are unique concentrations or condensations, into conscious unity, of extensive dynamical transactions. Intensity is not the negation of extensity. It is the maximum concentration or focalization of extensities, which in consciousness becomes the basis of the redistribution of extensive relations in a world of mobile elements. By virtue of its power of concentration, analysis, and integration, the mind is able to redirect physical motions so as partly to conquer space in the transportation of bodies and the intercommunication of minds. By the anticipatory power of constructive imagination, the mind is able to project itself even into the interplanetary reaches of cosmic space, and this projection may be the prelude to still vaster conquests of space-restrictions by man. Thus, though associated with a space-occupying body, and so having a local habitation, the mind is not determined and restricted as a mere physical thing is determined and restricted by external space relations. It is able to internalize, interpret and selectively choose among these space

conditions, and thus, in part control them. But if anyone confesses himself able to conceive reality as spaceless I confess my inability to follow such a conceptual flight into the inane.

In short, the conscious self is an active center which knows, evaluates, chooses, purposes, and acts in a physical universe. How my thought and purpose get translated into physical motions I do not know. How I perceive colors, sounds, tastes, smells, heat and cold, I do not fully understand, the physiologists' and psychologists' explanations notwithstanding. I do not understand how vibrations of ether or air occasion neural activities, and how *these* in turn occasion sensory-motor processes. I have to come back to the simple and universal fact that man sees with his eyes, hears with his ears, and smells with his nose. The universality of the fact, and the success of inferences and activities based thereon, warrant the belief that the world which man thus perceives, and which is the only physical world that he does have any immediate acquaintance with, is truly an integral part of the order of reality; although it may very well be the case that man's belief as to the place of his physical environment in the scheme of things is in part erroneous, or rather, very imperfectly represents the complete state of things. In any event any speculation which does not base itself on the belief in the reality of the physical order, as perceived, is open from the outset to the gravest suspicion. Our physical order must be a true part or constituent of the total real.

Similarly, I come back to the simple fact that I understand, evaluate and plan, choose and act through my body upon the physical things around me. The fact that we do not fully understand why minds should be conditioned by bodies, and *vice versa,* is not sufficient reason for denying that the relationship in question does obtain. Throughout the world of experience we find that life, with all its meanings and interests, involves contrast and opposition. Is not the contrast and opposition of body and mind, which yet are functionally interdependent, perhaps just the most universal marriage of opposites on which depends all the zest and significance of life? Here we seem to touch bottom facts of experience. If mind and body were absolutely identical their seeming duality or contrast would be a meaningless riddle. If they were absolutely independent, even though parallel, their mutual isolation and correspondence would be equally an insoluble riddle. Why should two such fundamental aspects of existence always run

abreast but never touch? In such case they would not be two aspects but two wholly sundered universes. Cleft by an impassable chasm there would be two worlds—the one a realm of insensate masses in space—the other a realm of gibbering ghosts. The assumption of the absolute identity and the utter disconnectedness of mind and body are equally meaningless. Reality is psycho-physical individuality.

APPENDIX I

MATTER, ENERGY, AND WILL

The concept of matter is a logical construction to complete our picture of a world which, empirically, is incomplete and consists of complexes of sensory qualities or physical things and psychical complexes or experients.

The concept of matter which is advocated in the present work is the dynamic or energetic view. Mass, impenetrability, space-occupancy, are expressions of the natures and interrelations of centers of energy.

Will is the consciously directed energy of a psychical agent. Indeed, as we have previously insisted, all our beliefs in external energies, physical agencies, are inferences from our personal experiences of suffering and action in relation to the environment. It does not follow that physical energies and human will are to be reduced to a common denominator, or that all energy is really volitional. To argue that, since we recognize and infer the existence of energy and activity in the world, only in relation to human actions and sufferings, therefore all activity must necessarily be of the volitional type is to assume the homeopathic dogma that all that is known must be like that which knows. It is tantamount to saying that the absurd principle "he who drives fat oxen must himself be fat" may be elevated into a supreme ontological law. It does not follow that, because conscious agency can direct physical energies, therefore the latter must be volitional agencies in disguise.

Empirically there are two kinds of agency, physical and psychical. It may be that physical energy is the expression of a world will, or it may be that physical energy is eternal and unoriginated. This problem we shall discuss when we take up the question of the ultimate unity of things. Certainly, physical energies are powers that we must take account of in the fulfillment of our human purposes. In no other fashion do we find grounds for recognizing their existence. Possibly, the most tenable conception of the ultimate and universal

reality is that, in some mysterious fashion, all physical energies further the fulfillment of values.

APPENDIX II

THE ORIGIN OF THE SOUL

In the history of thought there are three chief theories of the origin of the soul, all based on the assumption that the soul is not an epiphenomenon or by-product of physical processes. These theories are:

1. Preëxistence or metempsychosis.
2. Traducianism and
3. Creationism.

The doctrine of preëxistence, metempsychosis or transmigration, is found, to name only a few of its best known exemplars, in the Hindu Upanishads, the Buddhist Scriptures, the Pythagoreans, Orphics and Plato in Ancient Greece, in Bruno, Leibniz, and in present-day philosophy notably in Dr. J. M. E. McTaggart. According to this doctrine souls are eternal; their number is eternally fixed, and the birth and death of earthborn individuals are simply critical phases in the soul's pilgrimage through time. In the form which Plato gives to the doctrine, in his myths, the rational or spiritual part of the soul enters our world of space and time as a consequence of a fall from the changeless, eternal realm of the eternal essences or ideas, wages its warfare in this earthly order, and after death passes upward or downward in the world of its next embodiment in accord with the manner in which it has acquitted itself here. The supreme evidence of the soul's preëxistence and the pledge of its post-existence. Plato finds in its participation in the ideas, or essential forms, of logical universals, beauty and goodness. During its earthly career the soul wakens to a clearer recollection and fuller possession of the forms of which it had vision, and with which it had full communion, in the supernal realm.

Wordsworth's *Ode on Intimations of Immortality* is probably the best known expression of this doctrine in English.

The doctrine of preëxistence has a perennial attractiveness to speculative minds. It seems to be the simplest alternative to materialism; it offers a plausible doctrine to account for the innate or *a priori* capacities of the soul—for the logical structure of reason and the ideals of beauty and goodness which haunt and prick to action the noblest minds. The Kantian and cognate doctrines of *a priorism* are akin to it. Nevertheless, it is surely at variance with the facts

of mental heredity and development. If the individual spirit is a preëxistent and eternal reality, why should not the normal self have more concrete and specific memories of its preëxisting states of being? Why should one not be able to recollect clearly his personal status and social relationships of several thousand years ago? Why should men not come more quickly to agreement in regard to logical, ethical, moral and, in a word, to spiritual, values? If this doctrine be true then this world is not a "vale of soul making" but simply of soul reawakening. Then, too, we make no real progress here or hereafter; we simply recover what we had previously lost. What the soul previously possessed clearly, for some mysterious reason becomes obscured here and now.

The traducianist theory is that the souls of offspring are generated from the souls of their parents, as their bodies are from the bodies of their parents. Biologists of to-day seem quite generally to accept the doctrine of the continuity of the germ plasm and the Mendelian doctrine of heredity, according to which unit characters persist from generation to generation, and may be combined, dissociated and recombined, as the generations come and go. Thus the body of a child is not so much the immediate offspring of its parent body as it is of the germ plasm—a complex of unit characters which are transmitted through the parent organisms and presumably are modified during the transmission. (There is much dispute on the latter point.) Thus the body of a child is the resultant of a combination of unit characters effected through the reproductive process and modified by the environment. The soul must be, then, either an entirely fresh creation, or be the resultant of a new combination of psychical unit characters transmitted in the germ plasm and combined through the procreative act. Either the mental or spiritual principle of creative synthesis is transmitted through the germ plasm, or it is injected into the fertilized ovum at some stage in the latter's career by an act of special creation.

The special creation theory of the soul's origin has been widely accepted. It is difficult to refute such a theory directly, since we have not the data to say just when and how reason or spirit begins to function consciously, whether at conception, at some later point in prenatal life, or after birth. We do know, however, that while there are critical epochs in the history of the individual reason or spirit—such is the beginning of self-consciousness, the storm and stress of adolescence, the wakening of ethical and religious reflection, the coming to consciousness of ethical, intellectual and other forms of creative impulse—these crises are the results of long psychical incubation. The life of reason or spirit is more continuous than at

first blush it appears to be. The facts of mental and moral heredity tell against the special creation hypothesis.

I conclude, therefore, that the spiritual or rational principle of creative synthesis, the divine spark in mind, is the endless immanent potency of the creation of spiritual individuality transmitted and bursting into actuality generation after generation as an immanent continuity of spiritual life process. The process of generation is the creative process, not only in the sense of the creation of new vital and psychical individuals, by ever varying combinations of the fundamental unit characters of man, but, as well, of the continuous creation of new spiritual individualities. It is a process of continuous creation, of new centers of creative synthesis, of a higher kind than the other forms of creative synthesis manifested in the various grades and stages of cosmic evolution.

In short mental or spiritual individualities working through the procreative act are the endlessly fecund sources of new mental individualities. Tennyson writes:

> A soul shall draw from out the vast
> And strike his being into bounds [8]

Again he writes:

> Of that infinite One
> Who made thee unconquerably Thyself
> Out of this whole world—Self and all in all—
> Live thou! and of the grain and husk, the grape
> And ivy berry choose; and still depart
> From death to death thro life and life, and find
> Nearer and ever nearer Him, who wrought
> Not matter, nor the finite-infinite
> But this main miracle, that thou art thou,
> With power on thine own act and on the world.[9]

Such utterances, like the words of religious seers and philosophers, express in imaginative form the superlative estimate of *value* and *meaning* as inhering in spiritual individuality or personality. They formulate, in terms of cosmic origin and relationships, that faith in the worth and dignity of the human spirit which accompanies every creative deed and vision in human kind. Can one translate these utterances into the plain prose of philosophy and square them in any fashion with the findings of reason?

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[8] *In Memoriam.* Sixth stanza from the end.
[9] *De Profundis.*

The *spirit* or *reason* or *creative imagination* is the principle of creative synthesis, through the operation of which the biological complex of psychophysical unit characters forming the newborn individual, becomes a personality; the rational or spiritual self, self-determining and capable of serving and achieving intrinsic values. The "spirit," as the principle of rational integration, is evoked into activity through the urgent needs of redirection and organization of the native biological tendencies (the natural man). Thus, we may say, the spiritual principle in man is a principle of supervenient reflective integration "granted," as Lotze puts it, by the order of the universe to a specific vital constellation.

The division of reality into two realms, "natural" and "supernatural," has its source in an estimation of relative values. If nature be conceived as an insensate mechanism, or at best an unconscious vital urge; then the principle of valuation, namely, that the values of directive and creative thought, of moral insight and volition, of æsthetic creation and religious communion are the highest and worthiest functions of man, lead to the assertion that the source of these values is supernature. In any adequate philosophical sense of nature, the life of values, the life of spirit, is just as natural as the bodily life. Indeed the spiritual works are higher and truer because richer and more adequate expressions of the total meaning of the real than merely sentient organisms and their works, and higher still than physicochemical complexes and functions. The personal spirit and its works furnish our best key to the meaning of the cosmos, since personality is the most macrocosmic of all finite forms of existence.

CHAPTER XXVIII

PERSONALITY AND THE CULTURAL ORDER

The natural self, that is, the human being considered simply as an animal organism, is not a person. He becomes a person only through development in the medium of a system of social culture or nurture. Owing to the overweight of biological thinking to-day in psychology, sociology, and philosophy, and also owing in part to the grievous wounds that the occidental systems of social culture have received in the late war, there is grave danger of our minimizing the significance of social institutions and of the whole social *ethos* in the development of personality. Even so-called savages have closely knit systems of social culture. "The state of nature," whether conceived in terms of Hobbes or Rousseau, would be a condition in which human beings could not be human beings. Whatsoever genuine progress may have taken place in human history, has consisted solely in the development of cultural systems better adapted to the nurture of the qualities which constitute human personality. A one-sided and unhistorical regard for the results and methods of natural science leads men to ignore the fact that natural science can flourish only as an element in a system of social culture and as ministering to the development of human personality. Equally, an exclusive regard for the biological pit from which man has been digged leads psychology to ignore, and even to deny, the existence of those qualities of personality which have been engendered in the life of culture, but which cannot be measured in laboratories or found by anatomical and physiological study of the *genus homo* of the Simian group.

The great idealists, Plato, Fichte, Hegel, Royce, and Bosanquet are great idealists precisely because, in one fashion or another, they have clearly recognized that it is through participation in the objective structures of social culture that man rises to the stature of personality, and therefore, than an adequate philosophical interpretation of experience must accord a central place to the achieve-

ments and activities of culture—to the objective mind, to use Hegel's term—in and through which the subjective mind of the human animal develops personality. It is in the spirit of the great idealists, though in my own way, that I wish now to consider the general features of the interaction between the individual and cultural systems.[1]

I will begin by summarizing briefly some commonplaces of social psychology. The self-development of the individual involves the direction and control of his congenital impulses by social patterns in action and thought. Under the play of cultural influences resident in the social system, the individual is awakened to norms or general standards of conduct and thought. In this way he becomes socialized, or moralized and rationalized. His activity is controlled, and his thinking and feeling are shaped, by the typical social attitudes which are embodied in the customs and institutions which constitute the cultural system of a society; such as the institutions of the family, the community, industrial life, the state and the church; the prevailing bodies of belief and modes of valuation in regard to politics, morals, art, education and religion. Thus persons are developed from human animals, through their individual assimilation of the current systems of belief and conduct, by their reactions to the established types of social judgment and valuation. As the person develops, if the actual social ethos be spiritually poverty-stricken or restrictive, he may seek spiritual sustenance in the richer past, or he may strive to create new values. But I opine that, if dissatisfied with the spiritual ethos of the present, the individual strives to create new values by violently breaking with cultural history and shooting out of the blue, it is unlikely that he will add greatly to the sum of human culture.

In the process of being socialized, or moralized and rationalized, the individual becomes a better organized and more representative self, through the better articulation of his congenital

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[1] The ideas embodied in the present chapter were first stated by me in a paper read before the American Philosophical Association in December, 1904, and which appeared in the *Philosophical Review* for 1905, Vol. xiv, pp. 669–683. I discussed the subject further in an article entitled "Ethics, Sociology and Personality, *Philosophical Review*, Vol. xv, pp. 494–510. Prof. G. P. Adam's *Idealism and the Modern Age* brings out in a somewhat different way some of the main points in this attitude. Dr. Florian Znaniecki's *Cultural Reality* is an interesting introduction to a philosophy of culture. The German *Kultur-Philosophen*, especially Windelband, Rickert, and Scheler, have contributed important discussions to this matter.

capacities and through the growth of his aims in concreteness and social reference. All aspects of the self share in the generalization and articulation of character effected by interpersonal intercourse. The emotional reactions and will-attitudes of the individual continue to be uniquely his own; but, under the influence of the social reason and social types of action and feeling, individual feeling gains at once in breadth of range and fineness of organization. Thus the individual, as self-determining agent, comes to regard his own individuality as the servant and organ of the intrinsic spiritual values which are the basis of the cultural life—the values of truth, justice, friendship, fellowship, love, beauty, and holiness. Thus the individual becomes an integral and coöperant member of the social system of wills. Thus, as the organ for the expression and realization of social and ideal values, he takes on a more significant, organized, and universal character.

The social occasions for the individual's activity consist in the various historical systems or complex bodies of thought and conduct, in the atmosphere of which he is nurtured and which confront him with their explicit demands and commands. Viewed as a totality, these systems constitute the *cultural-historical ethos* or *spirit* of a time, a nation, a community. In law and morals, in politics, in science, and in religion and art, the individual member of a given period, nation, and community, finds himself confronted with more or less coherent group-systems which demand his loyal obedience or explicit rejection, his allegiance, criticism, or transformation.

These systems grow and change as they get summed up and modified in and through the actions of successive series of social groups and of individuals. Illustrations of such systems or historical complexes of ideas lie everywhere at hand in the institutions of contemporary civilization. Such are, for example, the established average code of customary morality (*Sittlichkeit*); the body of authoritative current scientific opinion; codes of social manners; the working systems of industrial groups such as trade-unions, employer's associations, etc.; political systems of ideas (democracy, socialism, imperialism, party traditions, etc.); systems of religious doctrine and practice represented by various churches and sects which, of course, are preëminently embodiments of historical complexes of ideas, etc. It is through interaction with these groups of ideas, which we may call partial or elementary

culture systems,[2] that the rational activity of the self is manifested. These systems are, in turn, the creations of personal activities. Human culture is the result and the record of personal deeds, no less in science and philosophy than in statecraft, morals, war, industry, and religion. The great creative personalities of history are the supreme embodiments of a spiritual self-activity, which every child of civilization, who enters with maturing self-consciousness into his work, must likewise manifest in some degree. However uncreative the mass of men may seem to be, each maturing personality appropriates the materials of culture by an individual reaction. Education is the process by which the spiritual or cultural heritage of the race is presented to the individual mind and assimilated by that mind.

The culture system of music or plastic art may pass over many an individual's head because he is insensitive to æsthetic values; but the systems of individual and social morality and of religion demand on the part of every member of society some sort of active attitude. Every man must take some attitude towards the moral obligations of his station, and, whether the attitude taken be receptive, critical or hostile, some degree of self-activity is involved. Thus the individual is a unique center of mental reaction in the historical culture-process of society. In his affirmations and rejections of cultural types and tendencies in thought, feeling, and action, he is either actualizing his own spiritual potencies or allowing them to perish of inanition. It is not through the narrow and circumscribed limits and poverty of contents of passing moments of consciousness, as revealed by introspection or retrospection, that we shall gain an adequate conception of the nature of the human self. What such analysis reveals is frequently but the trivialness, the insignificance, and meanness of the introspector's own conscious processes. What a human personality really means to be, and sometimes is, can be understood only from an intelligent appreciation of the culture history of humanity. Through the wider vistas of the comparative history of ethics, politics, science, industry, the arts, philosophy and religion, do we first get a significant glimpse of man's *spiritual nature and powers,* as revealed in the ideals, the values, and deeds wrought into his civilizations; and as unceasingly actualizing itself in the movement of spiritual or

[2] *Cf.* the treatment of this matter in Eucken's *Life's Basis and Life's Ideal* and *Der Kampf um einen geistigen Lebensinhalt.*

cultural history. Culture is at once the socialized creation of mind, and the instrument for the development of the individual mind.

The life of the human spirit is a constant dialectical process of self-transcendence of the given or empirical selfhood, the denial of the attained self, which is the achievement of a larger and more integrated selfhood. The fuller and more harmonious spiritual life is achieved by the individual only in so far as he forgets and passes beyond his already attained state of being, only in so far as he contemns and spurns his old self, dies to his past, and thus finds a more rational, wider, more harmonious selfhood through willing service and sympathetic participation in the aims and interests of that spiritual commonwealth of selves whose realization is the true meaning of the whole movement of human culture.

The first steps in this denial and self-transcendence of the merely empirical or animal self, which is at the same time the beginning of the spiritual personality, are taken by participation in the historical institutions of society—family, community, and nation; school, science, and philosophy; art and letters; manners, morals, and religion. The forms and contents of the cultural complexes represented by the above titles have undergone, and are still undergoing, change. Social culture is subject to constant mutation in some of its factors and, at times, in all. For example, the influence of organized dogmatic religion on the average West-European and American has both narrowed in extent and weakened in intensity since the close of the Middle Ages. Religion has become much more a matter of individual choice and attitude. Art probably does not mean in the life of European people to-day what it meant for the Italians of the Renaissance, and certainly it plays to-day a very minor and unimportant rôle in the life of the United States. There is as yet but little evidence of an awakening to the cultural and moral significance of beauty amongst us. Contrast the place of art in American life with the place it occupied in Periclean Athens or in the Italy of the Renaissance! In science and philosophy the sixteenth, seventeenth and eighteenth centuries, otherwise prolific in great ideas, hardly had an inkling of the tremendously significant conceptions of natural evolution and historical development, which to-day pervade all our thinking on nearly every subject. In the Middle Ages virginity was esteemed a much higher ethical state than marriage. Contrast the Christian

doctrine of chastity with the ancient Greek ideal of continence or moderation! To the Greek slavery was a natural institution not questioned. It is unnecessary further to multiply examples.

Through his stimulation by, and reaction to, the whole historical process of culture the individual enters into the use of the common heritage of spiritual achievement, and is thereby quickened to the exercise of a rational freedom or self-determination in the light of the patterns of thought and action supplied by the race. He is challenged to find and express, by his individual choices and deeds, the rational meanings and values of life. Thus, by his own reactions to the cultural stimuli and materials, the externally given fact and type of conduct and thought become internal and vital, the institutional becomes personal, the dead past of tradition and *status quo* in custom and belief become transformed into a living present, instinct with meaning and interest. The world of passive historical fact and social institution becomes a spiritual universe of present worth.

The literature and philosophy of Greece are but dead encumbrances on my mind unless I can find in them expressions of emotion, attitudes of will, significant interpretations of the meaning of human experience and destiny, that quicken and enlarge my own spiritual insight and shed light on the problems of human life to-day. The philosophy of a Descartes or a Kant are mere archæological lumber, unless they have living contact with and influence upon the problems of systematic thought to-day. The principles of social morality proclaimed by the Hebrew prophets are fossils of a dead and gone stratum of civilization unless they are found to bear pertinently on living issues of social ethics and religion. The gospel of Jesus is a worthless survival unless it really interprets, elevates, and directs towards higher levels, the personal and social aspirations and needs of the human spirit to-day.

On the other hand, through the vital assimilation of these and other historical achievements and revelations of the ongoing spiritual life of humanity, the life of the present is lifted out of its narrow and parochial outlook and delivered from the blindness of action and faith, which comes from seeing the present only in the light of its own broken and distorted rays. The present can never be understood in the light of the present alone. Its ills can never be diagnosed or cured with the instruments which itself alone supplies. To interpret the present aright, and to find

the means for its elevation, we must read its problems and tasks in the light of the universal meanings and values derived from setting the present in its relations to the past. The personal life is enlarged and inspired by entrance, through communion with the past, into the eternal ongoing spiritual life of the race, in which the scholastic distinctions of past and present are overcome. A finer and stronger sense of the value of beauty and order comes to us through assimilation of the Greek spirit. A deeper sense of the moral foundations of society is generated through assimilation of the prophetic ideals of the Hebrews. A stronger conviction of the permanent worth of the spirit in man is aroused by appropriation of the living content of the Gospel of Jesus.

Into the living present the spiritual past of the race enters as a dynamic and illuminating factor. Past and present are fused into a living and continuous whole of spiritual life, from which issues the future. There is a temporal continuity, a totality of intercommunion, in the successive stages of man's racial-spiritual history which strongly supports the hypothesis of a time-transcending spiritual whole, a universal and eternal spiritual reality into active relation with which the finite individual and the single historical epoch may enter, drawing from it and contributing to it by their own deeds.

The real personality of man is not the passively molded product of historical forces and social institutions. Man can affirm his free personality, by his reactions to these forces and institutions. Every rationally conscious self is a new and original center of reaction and influence in the total complex of social culture. The acts of the individual are the functioning of a meta-historical principle in the historical order. While the human person, considered as an empirical center of psychical life, is realized and expressed only in dependence upon the social-historical systems of culture, these systems are in turn the resultants of the mental acts of selves in society. They grow up, and are shaped and transformed, through the interrelations of selves. These social-historical systems have life and meaning only in so far as they are assimilated and affirmed by selves.

They are most strikingly modified, and sometimes wholly transformed, by the deeds of great historical personalities. The founder of a new religion finds his point of departure in existing religious ideas and practices; but, under his creative hand, these

undergo metamorphosis, usually by way of simplification and addition; as in the cases of Christianity and Buddhism. A Copernicus and a Galileo revolutionize current astronomical conceptions. Darwin gives the science of biology an entirely fresh start. The changes wrought by creative genius are usually less marked in morals, customs and laws; here the work of genius takes effect more slowly but no less certainly. As examples of the transforming influence of the great personality, consider Confucius and Buddha, Socrates and Plato, Jesus and St. Paul, Mohammed and Luther, in the fields of religion and morals! In art and letters consider a few that occur to my mind at random, Homer, Sophocles, Euripides, Virgil, Shakespeare, Raphael, Michelangelo, Goethe! Whatever be the precise character of the influence exerted by the great personality in the movement of human culture, whether it be mainly critical as in Protagoras, Hume, and Voltaire; reformatory and re-creative as in Socrates, Plato, Luther, Kant, and Goethe; in every case he sets out by his individual reaction to the whole complex culture system of his own time or to some element in it. Luther, for example, desired, while attacking the Roman practice as to the relation of faith and morals to the Catholic Church, to leave mediæval theology for the most part undisturbed and did indeed so leave it. And, of course, traditional complexes creep back into new movements and profoundly alter their character. Illustrations in abundance will occur to any reader well-informed in the history of Christianity.

The individual great or small, significant or insignificant, then is conditioned in ideas and deeds by the historical complexes which I have called culture systems; and the individual in some degree adds to, takes away from, or alters, the social heritage of culture.

And every mature human individual, great or small, actualizes his personality by assimilating and reacting to the complex whole of culture systems which is the very atmosphere of his own life. This whole is constituted by the more or less harmonious blending of partial culture systems or historical complexes of ideas in morals, religion, science, and politics.

These systems may sometimes lie in mere juxtaposition in his mind, or they may be in partial antagonism. For example, the systems of scientific and theological thought, of ethical ideals and business practice, by which an individual is influenced, may be antagonistic to one another. But, in any case, the individual of human culture, whether it be mainly critical as in Protogoras,

comes to his own as a rational personality only in so far as he assimilates and reacts to these systems. He attains rational self-consciousness and becomes an active spirit or person by developing conscious attitudes towards the various groups of commands, demands, and solicitations, in the midst of which alone man can awaken to the life of reason. To take conscious attitudes in these varied relations of the culture-life is to actualize one's spiritual selfhood. The attitudes assumed not only vary from man to man, but in the individual they may be complex and varied. The individual may wholly reject some of the historical complexes of ideas presented to him and wholly accept others.

The individual may wholly accept the scientific and wholly reject the religious systems of ideas of his time (for example Haeckel and in part Huxley), or he may criticize and sift all. The individual may be predominantly receptive in all directions (as the average man is), or critical (Hume, Voltaire), or reformatory and recreative (Socrates, Kant, Goethe). He may be critical in science and merely receptive in religion and politics, or critical in politics and merely receptive in science and morals, etc., through all the possible combinations. Again, he may with seeming passivity accept and assimilate all uncritically. This the mass of men seem to do. But even in the latter case, there is in the mature individual an element of at least partially conscious reaction in apprehending and assimilating that to which he gives allegiance. The very process of appropriating into one's own spirit, of making one's own, the materials of culture is an individual reaction. These historical complexes of ideas which I have called "culture systems," then, are never wholly foreign or extrinsic to the individual spirit. Even in the limiting case of seeming total passivity just mentioned, the actual self is not a mere creature of traditional and conventional tendencies. And, indeed, the various partial culture systems and the whole *ethos* of a period are vital and potent only in so far as they are absorbed and relived in the thoughts and deeds of persons. Regarded as merely historical, these systems are but slumbering potentialities of mental development and spiritual influence. But when they are taken up into the individual life and give content and direction to this, they become present, over-historical powers. The general movement of spiritual history has a certain continuity, but, as it is summed up, relived, and transformed in groups of men and in

individuals, it becomes discrete, and the reactions of each individual and group to the culture environment constitute a series of unique deeds.

Moreover, a historical comparison of the growth, the rise and modification and fall of culture systems, as well as a comparison of the will attitudes of living individuals towards the various culture systems which constitute a general social situation, would make it plain that, in being assimilated and relived, systems of ideas are undergoing constant, although often minute and inappreciable transformations. Molded and modified as they are by the assimilative and recreative thought and will attitudes of individuals, these systems rise and fall, stagnate and grow, and, in short, undergo constant modification by personal reactions. "The human beings who live, who have lived, and who are yet to live, form in themselves one immense system, in which the smallest movement of each single one is for the most part imperceptible, but yet affects by its influence the general unceasing progress. History is the relation of the fluctuations which occur on a large scale, from the dissimilarity of the powers of individual men. Our desire to study history is the longing to know the law of these fluctuations, and of the distribution of power affecting them." [3]

On a large scale, of course, it is the creative historical personalities—founders of religions, moral prophets and reformers, political innovators, æsthetic creators, scientific discoverers—who display, in the eyes of all who have eyes to see, this dynamic and recreative unity of individual life. The preëminent individual is the chief originating center in the historical movement of civilization. Whatever view one may take of the reciprocal relations between great historical personalities and the masses of their fellows, no progress can be made towards understanding the movements of past and present society unless we clearly recognize that concrete individuals are the creators, bearers, transformers of the whole process of culture. History has being and actuality only in so far as it is concentrated in the living activities and experiences of selves. Hence so-called general tendencies, social movements, the social consciousness, public opinion, the spirit of the age, etc., are actual and efficient only in so far as they are incorporated in the beliefs and deeds of persons.

The contention of the present argument is that what these

[3] H. Grimm, *Life of Michelangelo*, Vol. I, p. 62 (Edition of 1898).

great historical personalities do on a large scale every individual who comes to maturity of life does in some measure, and that hence the central nature of the human person is actualized and manifested in his individual reactions as a member of a historical culture. These reactions are the affirmations of an ultimate principle in the self. The personal values which they embody vary from individual to individual and shift from age to age. But the historical and the over-historical are fused in the living personality. And if we interpret and compare the evolution of human attitudes or personal and social valuations according to this method, we shall arrive at the conception of a cosmic and meta-historical system of individual spiritual centers which manifests itself in the historical movement of humanity. For the self is at once conditioned by and conditions its culture-matrix. In its active, conditioning aspect, it is a hyper-empirical meta-historical unity; in its aspect as conditioned and dependent, it is empirical and historical. In the former respect it is timeless, in the latter it develops in time; and these two aspects stand in organic relationship in the actual historical life of man. From this standpoint, the active attitude or dynamic center of personality becomes an ultimate, a limit to explanation and analysis. The active unity of the socially and historically significant culture self is a cumulative and creative center in the spiritual evolution of humanity. It transcends the phenomenal causal order. It cannot be dissected into elements or accounted for in terms of a nexus whose highest category is that of the mechanical equivalence of cause and effect. There is in the self an irreducible center of unity not residing in an inert substance, but consisting of a principle of actuality or rational spontaneity.

In the actual, historical personality, there is an active or dynamic unity which is realized and manifested through the assimilation and transformation of social culture systems. Civilization is a spiritual process in which man fashions for himself ever anew the instruments and materials for the actualization of his possibilities as person or rational spirit. And the history of culture is seen from this standpoint to be the record of man's shifting emphasis, in self-discovery and self-affirmation, on the relative values—hedonic, ethical, intellectual, æsthetic, etc.—of the various partial systems or groups of ideas which constitute the spiritual matrix for the growth and movement of selfhood.

Kant made the active synthetizing unity of consciousness, *Bewusstsein ueberhaupt,* the universal formal timeless principle of knowledge and moral action. This Kantian principle is the impersonal function of pure thinking and willing, the abstract and changeless principle of intellectual synthesis. It is the universal thinker which thinks in all rational finite beings. It is distinct from the empirical self or actual individual. We only know *that* it is, and that without it there could be no knowledge of a world. How it is related to the empirical self Kant does not make clear. His disciple Fichte made this universal ego the only reality. According to him, it manifests itself in the infinite series of finite egos. What is the relation of our metaphysical or metahistorical principle of individuality to Kant's doctrine? I hold that, while individual minds have a common structure, and a common or universal principle of rational and spiritual functioning, and thus exhibit an identical nature, this nature is not existentially identical in all minds, We may say that the principle is repeated in each; but each individual is, as an existence, distinct and unique. The individual is real and his relationships to the totality of the real are those of a unique center who is able, as thinking and feeling being, to enter into a manifold variety of connections with other selves. The unity of the self is that of a uniquely personal will. The self has a history and is subject to development from unconscious latency to conscious actuality. The empirical person results from the interaction of the synthetic creative principle, which is the root of individuality, with biological and cultural stimuli and materials. The active unifier is at first known as a dim and fluctuating self-feeling present in impulse and desire. The organization of this chaotic feeling self into a harmonious individuality can take place only through the concomitant organization of its experience in the vital interactions with nature and culture. The natural or biological ego must struggle and suffer, it must deny itself and go out into the world of external nature and culture in order that it may come home to itself as a rational unity, an integrated whole of feeling and insight, of will and thought. The organization of a significant and coherent world of nature, and a world of social order—morality, art, religion and philosophy—is at the same time the development of selves into self-directing harmony and totality of life. Thus selves come to know themselves and to realize their

spiritual powers as unique centers in which the meanings of the realm of nature and the cultural values of social history are being actualized and enjoyed. This process of the actualization of meanings and values through and in the lives of selfhood is one that, so far as we can see, is unceasing and incomplete as a world process and yet is forever being fulfilled as the generations come and go.

The unity of the self is thus a central factor in the organization of experience into a cosmos. The implicit unity of the self becomes distinctly known and effective only in vital relation to and dependence on the world. On the other hand, it is through constant activity of selves that the world of experience is organized and grows in meanings and values; the only vital unity-in-difference, the only dynamic center of cultural and cosmical relationships and values that we can conceive is that which functions in persons. The world of our common or rational experience and thinking, the realm of nature which exists for us as knowers and doers only by virtue of our coöperation in the social-historical life of humanity, is a realm of potential personality; the self is the world discovering and affirming its own meaning—the cosmos attaining to self-consciousness. Thus selfhood or personality discovers the meaning of the cosmical process; and the only conceivable cosmos is one implicated in, and known through, the organizing and interpreting activities of selves.

CHAPTER XXIX

PERSONALITY AND VALUES[1]

Thus far, in our treatment of personality, we have considered it chiefly from the standpoint of philosophical psychology—in fine, as the individuated center of experience and the focus of social relationships. We have now to consider the self as source and center of reference for *values.* The most persistent and central characteristic of the self is the fact that it evaluates, appreciates, and hence exercises selective preference among its possible ends and possessions. The root of valuation is *feeling* or *interest.* A colorless knower would not individuate his objects, but a conscious individual always individuates and thus selects and values objects in terms of interest or feeling. All human valuation, then, is due to the fact that the self is a feeling center. The philosopher, no less than the lover or gourmand, selects and rejects his objects of interest and enjoyment in terms of himself as the central mass of feeling reacting to these objects. Because we feel we exercise selective preferences and arrange the activities, enjoyments and relationships which are actual or possible for us, on a scale of values.[2]

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[1] This chapter is the expansion of an article on "Personality and a Metaphysics of Value" in *The International Journal of Ethics,* Vol. xxi, October, 1910, pp. 23–36.

[2] The question has been discussed (by Ehrenfels, Meinong, Urban and others) whether the psychological process of valuation is identical with desire (Ehrenfels), or the sense of value is given in feelings of value (Wertgefühle) that follow on judgments involving the recognition of the existence or non-existence of objects (Meinong). This is a psychological question which does not directly concern us here. It seems to me that desire implies value and that we may desire and value that which we recognize to be nonexistent. I may, for instance, desire and value for myself a life in which I should have ample leisure to read and write poetry. I cannot conceive myself valuing anything and not desiring it. In view, however, of the ambiguities in the use of the term "desire," it would be better, perhaps, to say that valuation springs from *interest.* If one has no interest in a thing, one does not value it, and *vice versa.* One can be interested in things that do not exist, provided one has desire for such things.

We may distinguish between the incipient *feelings of value* and the explicit *judgment of value.* Any agreeable feeling has positive value, since it satisfies some interest of the self; but an explicit judgment of value is the reflective assertion that the interest in question is satisfied. Logically, a judgment of value is of the same order as a judgment of existence. To say "this is good, noble, beautiful" is a judgment in the same sense as to say "it is true, real, cold or red." In judgments of value a universal or meaning is predicated of a subject. In both judgments of existence and of value the subject is either a concrete experience or an intellectual construction therefrom. The same subjects may be qualified by both types of judgment. For example, "this is a landscape and a beautiful one." The one important difference between judgments of value and all other types of judgment is this—all judgments of value affirm (or affirm by denying) that objects have agreeable or disagreeable, satisfying or dissatisfying, qualities-in-relation-to-selves, whereas judgments of existence, that is, all purely cognized qualities and relationships, may make assertions concerning real existence considered apart from any individual self. Valuation is thus always a *subject-object relation* and, thus far, is like cognition. But, whereas in pure cognition the object cognized is assumed to possess as such the cognized qualities and relations independently of the subject, there would be no meaning whatsoever in saying that an object had value apart from a subject. If there be objective character in values, it cannot be an objectivity that is real apart from all subjects. There is no "beautiful," there is no "good," but thinking makes it so. On the other hand, if there are electrons, there are electrons, whether we think so or not. Of course, theoretical judgments have various degrees and kinds of practical value. That is another question. The values that such judgments have are due to the interest of selves in them. Psychologically, many cognitive judgments are made because of some sort of interest. Others are made involuntarily or perforce.

Practical or value judgments are of two sorts of values: *instrumental* or *mediate* values, the values possessed by things and events as means for the attainments of ends beyond themselves; *intrinsic* or *immediate* values, the values which things and relationships have as ends-in-themselves, as immediately satisfying to persons. Here we are concerned primarily with intrinsic

values. But the distinction between instrumental and intrinsic values is by no means a hard and fast one. The means and the end cannot be separated. The end justifies the means, provided the means to the given end do not defeat another equally worthy end. An end worthy in itself may be nullified by the means taken for its accomplishment; for example, if, in order to support his family, a man sacrifices his integrity. An end not of high worth in itself may become ennobled by the means; for example, the selfless devotion of love and loyalty are noble things even though the objects be unworthy of the service dedicated to them.

Economic values are purely exchange values, purely instrumental. But, if we look upon economic activities from the standpoint of human well-being, then the center of emphasis shifts and economic values cease to become merely exchange values. Economic wealth is viewed from the standpoint of consumption.[3] The gaining of a livelihood may be carried on in a worthy or a degrading fashion. Earning one's living should be both a contribution to the service of others and a means of realizing one's own personality. That it is so often not is due to the prevalent materialism of western civilization—a materialism that is very patent to oriental thinkers. Thus economic activity should have both instrumental and intrinsic values. Bodily health and strength are, from the spiritual standpoint, instrumental values; but do they not constitute, in part, intrinsic values, in so far as they may conduce to the happiness and beauty of their possessor, enable him to have time and energy and zest for social service and the cultivation of letters, the arts or sciences? Æsthetic values are both instrumental and intrinsic. Plastic art and music refresh and stimulate the mind of the thinker and at the same time have value in themselves. Scholarship, scientific investigation, creative work in arts and letters, even teaching, are both instrumental and intrinsic in value.

I think that, in any society or individual, the separation of instrumental and intrinsic values is a mark of defect, of failure. Nothing more clearly evidences the failure of western civilization than the great gap which separates the industrialist and commercialist (whether employer or employee), and the ruler, from intelligent and spiritual participation in the values of art, letters,

[3] See, for example, J. A. Hobson's *Work and Wealth.*

science and learning and even religion. Spiritually our civilization is maimed, halt and blind.

A classification and survey of values is an important part of systematic philosophy, only in so far as thereby we may be able to set in a clearer and fuller light the dynamic idealizing and purposive tendencies and functions of selves or persons. A metaphysics of values can only be regarded as a special way of formulating a metaphysics of persons.

With this principle in mind I offer here, in outline, a tentative classification of the most significant and important human valuations. The list is not exhaustive, and I do not claim for the classification either logical completeness or inherent necessity. I do not know how one could proceed to satisfy either of these claims. I found my guiding principles simply by examining the empirical character and relations of personality. The classification is made as a means of getting forward with the main contention that the metaphysics of values must be, in effect, a metaphysics of persons, and that the final reality and supremacy of values in the world-order stands or falls with the reality and persistence of persons in this world-order. I hold that a person is, by the nature of the case, a more real reality, if the phrase be permissible, than even the most "over-individual" and "ineffable" value.

The three fundamental relations in which the human person stands, takes preferential attitudes, and has typical experiences, are to nature, fellowman, and God or the supreme reality and unity, however this may be conceived. The classification of intrinsic valuing attitudes may then be determined with reference to these three types of relationship. And, in and for the valuing person, there are three main types of valuing attitudes. These are: (1) theoretical or truth-attitudes; (2) practical or overt-action attitudes; (3) immediate emotional or feeling-attitudes. Each one of these types of valuing attitudes may be differentiated in each one of the three fundamental relationships of the experiencing and attitude-taking self. Further, in each group there will be a differentiation of values uncontrolled by any single numerical principle. And, since persons do not live and function as machines or series of compartments, there are complex cross-valuations. Of these a complete enumeration is not necessary, or, perhaps, even possible.

In the truth-value attitudes, which have to do with the ac-

ceptance and interpretation of fact-in-relation, we get: (1) The reality of nature in its separate elements and in their connections as parts of a whole. In knowing the physical world we accept it as it is, independent of our feelings and desires, and we find worth in interpreting it and submitting our minds to its leading, as thus accepted in all the variety of its elemental features and their connections. Thus we get and value natural science, as a systematic account of the given world-order. (2) The reality of our fellowmen. We find an intrinsic worth in knowing the actual character of human nature as expressed in its deeds and utterances in the living present and in the historical past. A systematic and growing knowledge of human nature in all the variety and interrelatedness of its elements constitutes the psychological, social, and historical sciences. (3) The reality of God, the Supreme Unity of the real. We find a worth in knowing God and our relations with him, and this knowledge, if there be such, constitutes theology and part of metaphysics. I am not, of course, here attempting to discuss the question whether there be a God or supreme unity, and whether there be any science of systematic theology. It is sufficient for my present purpose that a considerable number of intelligent persons hold that there is a real and knowable God and value the reality and knowableness of God. For such persons the being of God and the science which deals therewith have fact and truth values. And I think that these values are not the immediate emotional values of religion. A man may take keen interest and satisfaction in theological inquiry without having very much personal religious experience. Such, then, are the chief types of theoretical valuation.

The practical value-attitudes refer to the chief types of overt action. The respective objects of these valuations may be valued mediately, because they are means to the conservation and enhancement of other values, or they may, in some cases, come to be valued immediately, or on their own account. Normally, they are usually mediate values which tend to run into or be fused with the immediate emotional and theoretical values which they facilitate. The chief types are: (1) Technology, which comprises all the methods and instruments for the adjustment of human life to the order of nature, and the control of this order for the conservation and enhancement of human well-being. These technological instruments comprise all the applied arts from

engineering and everyday physical labor to medicine and hygiene. (2) The instrumentalities of social order and well-being. These are the methods and instruments for the regulation of our social relationships. They include all social customs and civil, political, and economic laws and arrangements, including the work of administration and teaching. In short, the whole machinery of our social life, when considered as machinery or instrumentality, falls under this head. (3) The methods and instruments for entering into right relationships with God. These comprise all forms of worship, prayer, meditation, and conduct, which may be regarded as practical means for gaining access to the supreme object of religion and for communion with Him.

Finally, there are the immediate emotional value-attitudes. These valuations never subserve any more remote ends. They are regarded as wholly self-sufficing; and other values, both theoretical and practical, are made subservient and instrumental to these. The chief types are: (1) The emotional values of nature, namely, the feelings of beauty, picturesqueness, grandeur, and sublimity aroused by contemplation of nature. The æsthetic values of nature represent to the feeling soul, which contemplates the harmoniously beautiful landscape, the picturesque waterfall, or the sublime range of snow-clad mountain peaks, a living harmony or unity of the manifold, a majesty of power or form, self-complete and self-sufficient. Similarly, the reproductions of nature in art and literature enhance these feelings by limitation and selection, by the exclusion of all discordant elements and of all features suggestive of natural incompleteness or lack of harmony and balance. (2) The emotional values of human fellowship or social life. Such are the feelings of companionship, comradeship, friendship, tender emotion, and love. These emotions, and others akin to them, are distinctively interpersonal emotional values. They run from the wider and vaguer sentiments of humanity to the narrower and more intense sentiments of the family and romantic sexual love. Their antitheses are the negative social feelings, the anti-social social emotions one might call them, since they, too, depend on interpersonal relationships. I mean such emotions as hostility, distrust, hatred. Every principal feeling, doubtless, has its antithesis, and there is a negative aspect to every form of valuation; but we are now concerned with the primary and positive aspects of valuation. The sum or, rather, the organic unity

of the emotional values of interpersonal relationship might be called the ethical emotional value-attitude of personality. This would constitute the entire disposition of the person toward other persons. It is doubtful whether there is, in all persons, such an ethical unity of disposition, since in many individuals personality is very imperfectly achieved. The generally recognized moral values, such as truthfulness, justice, and honesty, are conceptual generalizations and incipient plans of action in relation to other persons, which have their root and origin in the ethical emotional dispositions of persons. Ethical dispositions have a conceptual or thought aspect, but, primarily, in their immediacy, they are emotional dispositions or tendencies to act. The degree of unity and harmony in the ethical disposition is expressed in the degree of unity which obtains in the interpersonal dispositions or sentiments.

Here, too, belong the æsthetic values of social and cultural life. In art and literature the emotions and deeds of individuals, the clashing and reconciliation of wills in society with one another and with nature and fate, are presented to the beholder in ideally self-complete unities of feeling and action. Art and literature produce elevation, harmony, and repose of feeling in regard to human deeds and destinies, by lifting them out of the actual, by isolating them in a designed unity, and thus eliminating the incompleteness, the reference beyond themselves, and the discords, of the romantic and tragic episodes of actual life.

(3) Religious emotional values. Communion or felt personal relationship with God would seem to be the final goal of all religious thought and practice. Worship, prayer, meditation, are instruments or means toward the end of fellowship or communion with God. Inasmuch as the final object of religious value is taken to be the Supreme Reality and Ultimate Unity, religious experience promises to afford the most self-complete, comprehensive, and satisfying type of emotional value. It is not surprising that religious devotees have found in it that type of value-experience in which all other intrinsic human valuations find their union and consummation. Art performs a similar service for religious emotional valuations and for social emotional valuations. Art lifts religious emotions out of the imperfect actuality and sets them forth in their own harmonious unity, self-sufficiency, and self-completeness.

I have not given a special place in this classification to æsthetic values, for the reason that these values do not seem to me to constitute a single unified type. The æsthetic values are complex and varied, according to their reference to nature, or fellowman, or God. All art is an instrument of social expression of emotions and sentiments. In art we find, besides the reproduction of the æsthetic feelings engendered by the contemplation of nature, the expression, with a freedom, harmony, and self-completeness, which is lacking in actual life, of the interpersonal emotions of social life. Creative art, in so far as it deals with human themes, lends an ideal grace to life, and the life is the life of men in its social and cultural aspects.

The above classification of values involves, as do all such classifications, the sundering of things that in actual experience are found together. For example, social and religious values interpenetrate. Æsthetic values are found in close association with both social and religious emotions and sentiments. Ethical and religious values are found fused together. In the practical values control of nature and social control constantly intermingle. In the theoretical values natural science and humanistic science influence one another's methods and conceptions, and both influence theology and religious metaphysics. The manifold interdependences of nature and human society are reflected in the interpenetrations of human values; and, if the values of religion and theology are to be taken as real and intrinsic values, these values, by the very character of their objects and their modes of expression, must interpenetrate with the values of the natural order and of human fellowship.

What, in general, are the relations between the theoretical, practical, and emotional values?

The practical value-attitudes are normally instrumental. They are means to ends. The normal relation between the practical and the theoretical values is that of instruments to the determining conditions of their fashioning and operation. The successful outcome of the activities represented by the values of technology, law, politics, custom, and morality, depend on their conformity with reality, or, in other words, with the orders of existence represented by the theoretical or truth-values. Truth of fact and truth of law in science are means to practical ends only in the

sense that they dictate the conditions for the realization of the practical and emotional values of action.

In the case of the religious values, the success of the modes of action represented by worship, prayer, and meditation, depends upon the assumed conformity of these actions with the ultimate reality of God. A man may, indeed, believe in a certain kind of God because he wants or wills so to believe. To worship the God whom one craves, and to feel oneself in communion with him, may be the most profoundly satisfying experience of value that a finite mind can have; but the continuance and meaningfulness of this value is possible only if the God is held to be a reality, not a product of the worshiper's wishes.

The general goal of the activities initiated by the practical value-attitudes is the enlargement, enrichment, and harmonization of the immediate emotional values of personality. Inasmuch as truth-values represent the determining conditions for such emotional or feeling fulfillment, we may say that the ultimate intrinsic values for personal deed and experience are the reactions of personal feeling, in which the truth or knowledge which we accept or discover, and the overt activities in which we engage, whether with reference to nature, fellowmen, or God, bear their fruits in a richer, more harmonious, and continuing feeling-experience. The final intrinsic values of life are the personally possessed unities of truth and feeling.

If this view seems to reduce truth and reality, which is the object of truth's reference, to the position of mere handmaids of emotion, it is to be borne in mind, on the other hand, that the emotional values of experience are progressively realized and conserved only in so far as they are the fruits of practices in harmony with the real constitution and course of the universe. Emotional experience or feeling, to be permanently and fully satisfying, must conform to the truth of things. If there were no real and determinate nature of things, independent of our transient feelings and wishes, there would be no reason why any desire or wish, or any number of incompatible desires might not all be fully satisfied *ad libitum*. If beggars could be choosers, we might all ride in automobiles. A false science of nature will not yield permanently good results in its practical applications. Laws and moral injunctions will be in vain unless they are in harmony with the actual constitution of human nature which,

in turn, may be revealed in very significant aspects by social customs, law, and morality. Even friendship and love must take account of the actual individuality of friends and lovers, if these values would endure.

The immediate emotional values of experience then are not independent of the truth and reality values. The latter values yield their appropriate emotional satisfactions, and the former values, in turn, are sustained and illuminated by the truth values. Since the immediate unity of the personality is a unity of feeling, the acts and the truth-attitudes which yield the personal values of experience do so by being appropriated into and fused with the personal self-feeling. No purely emotional value is self-sustaining and no intellectual or theoretical value is without emotional coloring. In their immediate reality for the person, all intrinsic values involve the union, with varying emphasis, of truth and feeling, or intellection and emotion.

In this work of classification we have been dealing in abstractions. If we ask what is the ultimate principle for the unification of values, and what is the final sustaining ground of values, I think we must answer, to both questions, personality!

Valuations, as incentives to and appraisals of actions, are simply attitudes of persons, affirmations which enhance and appraise experiences. Anything consciously desired and purposively sought is thus desired and sought because it represents some worth for a person either in private or social relations. I have not, in my classification, included a separate set of "personal values," because it seems to me that, in the last analysis, all values are personal facts and attitudes. And the distinction, so frequently drawn, between individual and overindividual values, is simply a distinction in universality, rationality, and comprehensiveness, of content and scope, within the scale of personal values. A person is a more or less socialized and universalized individual, and, as such, may be described in terms of his valuations. These are measures of his degree of personalization. The choice of ends by a more or less rational agent depends on a series of judgments of value or worth. Theoretical, no less than practical, activities are guided by the affirmation of a series or scale of life-values. The history of a man's valuations tells the story of his judgments on life and of his attitudes in relation to its varied experiences. In typical and contrasting forms of cul-

ture, such as those of China and Europe, we find broadly defined and differing standards of value in regard to science, social life, art, religion, etc. The history of the mutations of culture can be compactly expressed in terms of the evolution of valuations. This would give us a sublimated *Kulturgeschichte.*

On the other hand, considered as immediate and effective realities, values are valuations, that is, affirmations and attitudes which exist and function only in personal centers of experience and deed. No formal logical and metaphysical principle for the final unification and cosmical grounding of values can be found outside the unity of personal attitude and experience. In the lives of finite persons there are two complementary and mutually indispensable features: diversity or wealth of content, and internal harmony of experience. There are, in actual developing persons, all grades of relationship between the diversity and the harmony of experiences, but in a sane self neither can be wholly absent. The growth of unity in diversity in the self can be expressed in terms of the organization of values in increasing harmony. The so-called overindividual values are representative of the more universal and rational intrapersonal and interpersonal attitudes. The "normative" or "ideal" values of truth-seeking and truth-knowing, sympathy, justice, love, beauty, holiness and fellowship with God, are generalized expressions of fundamental attitudes and contents of spiritual and rational selves. Spiritual selfhood or personality is actualized precisely through the affirmation and service, in concrete situations, of these universal standards or norms. In this sense, our definitions of ideal values and of the spiritual and rational self, are and must be circular. The person is the rational unity of conscious life, in and for which values are realized; and the person develops in and through the universalizing value-attitudes.

The so-called "absolute" values or overindividual types of valuation can be nothing other than generalized formulations of the ways in which persons actually attain self-fulfillment through the progressive harmonization and universalization of their actions and experiences. Since there are overindividual types of intrinsic valuation, this means that persons are conscious individuals whose vocation it is to unify and rationalize their lives by finding and affirming certain universal interests and ends which belong to their deepest and truest selfhood. In other

words, it means that the development of personality takes place through the effective working, in separate individuals, of certain common or universal potencies of reason and spirit.

Some philosophers would confine philosophy to the analysis and description of values as actual functions and processes in experience, and would drop all questions which might arise in regard to a metaphysics or ontology of values. If this be what is meant by defining philosophy as the theory of values, the limitation is, I think, an impossible one to carry out. Intrinsic values are, indeed, psychical phenomena and functions and, therefore, susceptible of a descriptive psychological treatment; nevertheless, by their very nature, they claim to be more than contingent psychical phenomena, or occasional elements in a phenomenal causal complex of experience. Philosophy, since it is concerned with the final problems that arise out of the character of experience as fragmentary and partially incoherent, cannot be satisfied with an empirical psychological analysis and description of values. The problem of truth-value is the central one. For the value of truth is no longer valid, is no longer an intrinsic value, and has no meaning in contrast with error, if truth be no more than an occasional, or even a frequent, product of a blind and unthinking complex of causal conditions. If truth be just a causal product in a psychological series, just one element in the psychical complex of finite experiences, this proposition is no truer than its opposite and there is no truth. A partially parallel situation obtains in regard to goodness, beauty, and holiness: although in these cases the situation is somewhat different, for, if there be no intrinsic validity in truth, there can be no sense in pursuing farther the inquiry as to the reality and truth of other forms of value.

To say that the problem of values is preëminently the problem of philosophy, means, then, that the fundamental philosophical problem is that of the relation of the mind's valuing, purposing, and attitude-taking in knowing, contemplating, doing, and worshiping, to the course of reality. And, we do not evade metaphysics, or issue in a new era of thought, for which these questions will appear juvenile, by talking about values, *in abstracto,* rather than about valuing selves.

If all values are real only for subjects, what are we to say of objectivity in values? The objectivity of intrinsic values consists in the basic fact that only through the quest and possession of them

can the higher life of selfhood be realized. While intrinsic values can have no actual existence apart from conscious life, and hence are real only as affirmed and enjoyed by selves, these values have an objective and constraining character; they possess over-individual validity. Moral and intellectual values, and I think, too, though less clearly identifiable, æsthetic and religious values, are *objective structures* in the life of personality. The evidence for this contention is that without the service of values, without seeking and attaining these, the higher selfhood cannot be realized. The objective constitution of intrinsic values constrains the individual who, if he denies or ignores them, does not become a rational and moral person. One cannot be a thinker if one ignore or deny the principles of logical thought. One cannot be a well-integrated personality if one ignore the moral values of personal relationship. One cannot be a full-bodied personality if one ignore the claims of æsthetic values. And the religious values in some form are simply the most comprehensive expression of the conditions of the harmony of the self with itself and its reconciliation with the universal order. Thus intrinsic values, as served, adjudged and enjoyed by selves, are to be regarded as a real existent order, a hyperphysical, objective structure. The essence of objective idealism, in contrast with subjective idealism, or mentalism, is the acceptance by the self of the valid authority and reality of an objective order of values.

The Platonic idealism was the first thoroughgoing attempt at a metaphysic of values, and therefore remains the norm and type of all objective idealism. In Plato intrinsic values, which can be seen and served by men, are regarded as authentic revelations of the enduring order or meaning of reality. For Aristotle, too, the æsthetic-intellectual concept of the pure self-activity of reason represents the highest value and the supreme reality. Kant's whole philosophy is controlled by the concept of the moral value of personality and, in a more consistent fashion, the philosophy of Fichte. For Hegel the supreme reality is identified with spirit as the unifying ground of value. For him, the ultimate meaning of individual experience, history and nature, is the realization, through social life, art, religion and philosophy, by the finite self of its own individuality in conscious harmony with the absolute spirit. Anglo-American objective idealism, especially in Bradley, Bosanquet and Royce, has a similar purport. Recent philosophy

of values in Germany, as in Windelband, Rickert and Eucken, seeks, too, in the objective and constraining character of spiritual values, the key to the meaning of reality. All great religious systems, notably, for instance, historic Christianity, are declarations, in imaginative pictorial symbols, of the supreme validity and reality of an objective teleological structure or order of spiritual values; by laying hold on, serving and enjoying which, the individual alone realizes his true selfhood. And in all these doctrines of an objective structure of values, the individual is regarded as a socialized self. Some thinkers who make *value* the central concept of philosophy have tried to escape the necessity for a metaphysics of personality by having recourse to a "transcendental ought" (*sollen*) as the ultimate ground for the objectivity of values. How a mere "ought" or "should" can be the objective ground of anything passes my comprehension. To set up such a notion is an intellectually vicious abstractionism, of the same order as that which would ground all the reality, worth of personal life, in a "consciousness in general" (*Bewusstsein überhaupt*). Pure universals do not exist and certainly not the most abstract of all universals, either consciousness or matter or being in general.[4] *The objective reality of values is that alone of qualities of persons.* Whatever reality values have independent of finite selves they can possess only as essential qualities of a perfect person or community of persons. If we recognize that the willing service of certain values, such as justice, love, truth and beauty, are the conditions through which our spiritual or personal lives are fulfilled, this recognition implies that such values inhere in the constitution of ultimate reality and this implies that reality, at its highest and most permanent level is spiritual and personal. This position by no means involves the assumption that we or any other human beings have already discovered and realized all the values which existence makes possible. A human person is not merely what he does, but what he is capable of doing,[5] and being. "Persons cannot be understood by what they have achieved at any given moment; their nature is to be realizers of value." [6]

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[4] This procedure is like trying to shoot a tiger by aiming at him in general; very ineffective and dangerous hunting.

[5] Sorley, *Moral Values and the Idea of God*, p. 190.

[6] *Ibid.*, p. 240. *Cf.* many passages in Robert Browning, especially *Cristina* and *Rabbi Ben Ezra*.

Indeed the relation between the human person's judgments and realizations of value and the objective order are analogous to the relations between his perceptions and scientific theories and the objective order.

We do not know what the physical order would be like apart from the conditions of our experience. Color, sound, form, movement, etc., are real in so far as there are percipient selves; scientific theories of the physical world are valid interpretations thereof only on the hypothesis that our common perceptions are not illusory; scientific theories are approximating constructions of the physical basis of our experience *which have value only upon the assumption that perception is not illusion.* Similarly with the æsthetic qualities and, I will add, with the moral qualities. Logically all qualities perceived and relations apprehended by us are on the same footing, although, by reason of the greater variability and complexity in the æsthetic and moral reactions of individuals, by reason of the fact that the tertiary qualities [7] attributed to reality are more shot through by feeling and, in the case of moral qualities, have more directly to do with interpersonal relations, there is a greater degree of subjectivity and disagreement in regard to man's æsthetic and moral interpretations of his world. But the differences are of "degree" and I shall contend at length in later chapters, that the æsthetic and moral, yes, and even the religious, reactions of human personality to its cosmical environment have as good right to be heard in making up a theory of the ultimate meaning of reality as have his perceptual data which go by the name of "primary" and "secondary" qualities.

It is a prejudice, due to the overvaluation of the technical achievements of western civilization and the apparent superiority of mathematical and mechanical methods, that condemns æsthetic, moral and religious valuations as mere subjective imaginings and gives objectivity solely to mechanical schemes of nature.

If we have the right to say that man's æsthetic, moral and religious sentiments are genuine data for the interpretation of his place in the universe it follows therefrom that, since the values inherent in these sentiments always have lodgment in selves or persons, the universe is personal or spiritual.

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[7] Æsthetic qualities of nature are called "tertiary" by analogy with the "primary" and "secondary" qualities of perceptual experience.

We human selves discover values and in their realization become persons and thereby become richer and more harmonious finite embodiments of the meaningful and worthful life of the universe. Beauty, for instance, is its own excuse for being, not because beauty is truth and truth beauty but because it is true that beauty is a revelation of the soul of things. The same is true of justice, love, fellowship. And the most comprehensive religious value experience—communion with God—is that communion of the individual person with the cosmic spirit which grows in wealth and harmony with the growth of personality in insight, love and wisdom. For the deepest quality in man, that which makes him a person or spirit in becoming, is the capacity to transcend his natural or biological selfhood and to take on more universal and richer spiritual quality. Man is essentially a God-seeker, one who can become divine. This destiny of spiritual progress through self-transcendence is the deepest word of the greatest human thinkers. "Not my will but thine be done." "For me to live is Christ, and to die is gain." "Forgetting the things which are behind, and stretching forward to the things which are before, I press on toward the goal unto the prize of the high calling." "He that findeth his life shall lose it, and he that loseth his life for my sake shall find it." "Join a whole or make one." (Jesus, Paul and Goethe.) So too the doctrine of the union of the individual soul with the universal soul; Plato's doctrine of the good; Aristotle's contemplative life; the Stoic life in harmony with the logos; the mystic's contemplative and ecstatic union with the one. Through these and other one-sided or partial expressions of the same principle there shines one fundamental truth—the absolute principle of value, the objective ground of all values is personality, spiritual selfhood in widest commonalty spread. Whatever enriches and stabilizes the life of spiritual selfhood and of community which is the atmosphere in which personality lives and moves and has its being, has value. The objective reality of all values is the interdependent life of personality and community.

All values are relative, but not in the sense that no values are objectively valid. All values are relative in the sense that they are related to, have their ground in, personality. Some values are wholly instrumental and others chiefly so. Economic values are, from our standpoint, purely instrumental; they serve the life of personality. Bodily values are chiefly so, since personality is

essentially spirit, but not wholly so, since body contributes something directly to spiritual self-fulfillment. The values furthered by political and technical organizations are chiefly instrumental. On the other hand in so far as the nation-state, for instance, is the adequate expression of the soul and culture of a people it tends to become a genuine spiritual community. But the state, perhaps, can never be a spiritual community. The family, the group of friends, the church, are genuine spiritual communities and hence their values are not purely instrumental. They are means which become essential parts of the end—since it is in love, fellowship, and devotion that spiritual personality is realized.

All values are related to persons and thus person-dependent. Is there a *scale* of values? No, for this would imply that the values of life could be measured mathematically on a common standard. Personal values constitute a system, a harmonious hyperorganic whole; for the ideal personality is a harmonious spiritual whole, in which the principle of the whole lives in each part and each part lives only as a part of the whole. And the individual person can be such only as a member of the cosmic spiritual system, since the interpersonal and the intrapersonal values are interdependent. One can become a free and rational spirit only through membership in the ideal spiritual community.

Some philosophers who make value the central concept of philosophy hold that, in place of a metaphysic of selves, philosophy should aim at a metaphysic of values—that the ultimate goal of thought is the rational faith in the supremacy of values.[8] This, it seems to me, is to substitute a set of abstractions for concrete actualities; it is to give way to the temptation to hypostatize abstract entities, when confronted with the difficulties involved in establishing on rational grounds a faith in the value and permanence of conscious individuality or personality. Values have no existence as such; in other words, *apart from persons,* integrity, justice, love, happiness, beauty and perfection do not exist. As Mr. Sorley puts it: "Moral perfection is of supreme value but not the mere concept of moral perfection." "The subject of values is always something we describe by a concrete term." "When the world is judged to be good or bad it is as the environment of persons." Thus when the question is raised whether man has any

[8] For instance Rickert, Windelband and Münsterberg.

reasonable right to believe in the supremacy and permanence of values in the universe, one has only put, in more abstract form, the question: Has man a right to a rational faith in the supremacy or permanence of a society of persons in the universe? Has he a right to believe that rational individuality grows and endures in the cosmos and that the ruling order of the cosmos is the continuous fruition of a commonwealth of persons?

Beyond the harmonious enrichment and expansion of personal experience, as at once individual and universal, there is no principle discoverable for the unification of values. Values *per se,* apart from the attitudes and achievements of selves, have no substantive existence. The evolution of values is the evolution of personality. Hence, in affirming and realizing the most universal values the self is discovering and affirming the conditions of its own spiritual and rational functioning.

If the so-called absolute values have no self-existence beyond the interpersonal and intrapersonal affirmations of selves, it follows that there can be no universal cosmical ground and sustaining unity of human values, unless there be a cosmical ground for the lives of finite persons. Logical, ethical, æsthetic, and religious valuations can have no absolute basis unless personality have an absolute basis. The ultimate foundation of spiritual values must reside in a supreme self or nowhere. If personality have a metaphysical basis of reality, then ideal values may be permanently valid and effective in the cosmical process; but the ground of the permanent validity of values must not be so conceived as to rob the evolution of finite personalities of all significance.

In brief, the authority and persistence of the intrinsic values of human experience require the hypothesis of a supreme conscious unity and ground and conservator of values, that is, of a self who is the sustainer of all these values which are progressively discovered, affirmed, and realized in the social, ethical, æsthetic, intellectual and religious experiences of human persons.

If ethical values and other intrinsic values that may be essential conditions and qualities of personality have a cosmic ground, that means, translated into more concrete terms, that the life of personality is rooted and grounded in the nature of the cosmos. We cannot attempt further discussion of this question of all questions until we have surveyed more fully the nature of human values and the general structure of reality.

I remark, however, by way of conclusion—that the course of evolution has resulted in the emergence and expansion of personality and its values; that teleological activity, that is, in man, activity directed toward the achievement and maintenance of values, is an obvious empirical characteristic of the world order, and that no doctrine of evolution which is to be adequate to the facts can escape employing the notions of direction, end, and value. No matter how human and personal values got into the evolutionary process, they are here, and, probably they are growing in wealth of content and effectiveness of expression. By whatever mechanism it may have happened, the evolutionary process has brought forth human and spiritual values, and it continues to manifest them to an increasing degree and with a growing wealth of content. It can hardly have produced them out of nothing and by chance in a blind chaos. It would seem that a humanistic principle, a power not ourselves making for personality, must have been at work in it all along. If so, the evolutionary process only fully explains itself in terms of its labor, however slowly and toilsomely the work may seem to be accomplished, to bring forth persons and their valuations of their experiences. If the process of evolution be not capable of some such interpretation I cannot see that it is explicable at all. For truth, the central determining value of conscious reflective life, and goodness, beauty, and holiness, the other determining values of personality, by their very nature claim to be more than occasional precipitations of cosmical weather. These values, and the conscious spirits in which they inhere and function, must claim to be continuously valid principles for the interpretation of reality, and continuously effective principles in the evolution of the same reality. Without the recognition of such principles, evolution is unintelligible, since intelligible change involves continuity of direction and of ends. It is precisely such a progressive continuity of meaning that is afforded by the hypothesis of the persistent reality and effectiveness of persons and their valuations. If intrinsic values are valid, and if the world-process has a continuous whole of meaning, then persons must, no matter when or how they may make their appearance in the history of the temporal universe, be true manifestations of a supreme personality, or, if the term be preferred, of a supra-personality.

CHAPTER XXX

ETHICAL VALUES[1]

Ethics is the science of the intrinsic values of the individual life, when considered in its social relations; it asks, what are the standards of good conduct that are desirable from the viewpoint of social well-being. Its business is to determine and interpret those ends of concerted human striving which are worthy to be sought on their own account, and to organize them into a harmonious system of social goods or values. If, therefore, moral goodness is primarily a quality of persons, if all moral values are personal values, ethics is a science of personality in a peculiarly intimate and full sense. We must first consider whether all moral values are qualities of persons.

The moral judgment is passed, in the first instance, on acts, but, in its ultimate reference, on conscious agents regarded as self-determining and responsible centers of volition. Intrinsic moral quality or value can therefore inhere only in the dispositions and activities of selves. Material things and processes, wealth, social institutions, science and art, are not intrinsically or ethically good; they are good only with respect to their consequences in the expansion and harmonization of the life of rational selfhood. Kant expressed this truth finely in his great saying, "There is nothing in the world, and, indeed, nothing that we can think outside the same, that we can regard as good without limitation, except the good will."[2] By *will* Kant means the personal disposition (*Gesinnung*) to choose and pursue ends with full view of their consequences.

He does not mean a life of "good intentions," with which, as the popular proverb runs, hell may be paved. The supreme good

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[1] This chapter is the revision and expansion of an article "Ethics, Sociology and Personality" in *The Philosophical Review*, Vol. xv, No. 5, September, 1906; pp. 494–510.

[2] Kant, *Metaphysics of Morality*, Section 1.

is the maximum realization of the capacities for feeling and activity (including, of course, thought as a form of activity) of the socialized individual or person. Ultimately there can be no good which is not affirmed or experienced by selves, and no virtue which is not the quality of a conscious and free individuality. All moral values are functions of personality. For example, *truthfulness* is harmony between personal thought and its expression; *temperance* or self-control is the subordination and direction of the sensuous appetites to the wider æsthetic, intellectual, and social aims of the self; *courage* is the power and will to affirm in action and in suffering the integrity and supremacy of the rational self; *justice,* the all-controlling form of social virtue, is the effective recognition, by a person or group of persons, of the intrinsic worth and inalienable rights of personality in other selves; injustice contradicts the nature of personality, since it is the denial to others of that worth which we affirm in ourselves; and when, for example, we say a man is not just to himself we mean that he is ignoring or denying the intrinsic dignity of his own rational nature; *wisdom* is right judgment in regard to the relative values of specific personal ends, and in regard to the determination of the right means for the attainment of these ends; *benevolence* or active sympathy, *friendship,* and *love* are forms of that interpersonal feeling which, as we shall show more fully later on, is the very basis and goal of the richest and most harmonious selfhood.

On the other hand, as we have already seen, persons are socialized individuals. Society is an interpersonal mental world. Hence, moral values are at once individual in origin and enjoyment and social in reference and consequences. To say that my ethical valuations are social is another way of saying that, as ethical being, the ends which I value and strive for have to do with other persons as well as myself. I am a person only in a world of persons.

Society undergoes historical evolution, and ethical valuations are both factors in, and resultants of, social evolution. The specific *ethical goods,* the *virtues, duties,* and *rights,* that are expressed in moral judgments and that control moral activity, from period to period and from place to place in the historical world, undergo change in the cultural evolution of races, nations, and social groups, and in the moral development of individuals. It may truly be said that any social group—for example, a church,

college, a labor union, a civic community, a nation, or, on a wider scale, an epoch of human culture, such as the apostolic age of the Christian Church or the European Renaissance—is a spiritual medium for the development of personality. In the moral evolution of humanity it sometimes happens that the virtues of another age and race are vices and crimes of to-day and here. Contemporary cultural variations in the content of moral judgment, for example, in Borneo, Japan, China, England, to-day, represent different levels of moral evolution.

Moral valuations, then, are historically conditioned products; culture-history, in turn, is the product of personal and interpersonal judgments and acts. The significance and validity of ethical values in the concrete cannot be understood apart from their history. And to trace the historical evolution of moral values in detail is a very interesting and important task of culture-history; for example, from the morals of a primitive tribe to the social ethics of the Hebrew prophets is a long step, and a considerable step further it is from the Hebrew ethics of a theocratic society, in which perfect justice and love should reign, to the rational individualism of to-day. Here, however, we are concerned only with the general principles for the interpretation of the evolution of moral values in society and not with the details of social-moral evolution. Is there traceable in the evolution of moral values a well-defined movement towards the recognition of a rational self or person as the final bearer of values? What is the relation of this historical evolution to the development of personality in the individual? Are there distinct levels or stages of social-moral evolution and of individual-moral development? Both questions I shall answer in the affirmative. Individual development is an epitome of social evolution. The moral evolution in society and the moral development in the individual reciprocally determine one another.

There are three clearly distinct stages of social-moral evolution and of individual-moral development. First, is the "customary" social or "tribal" morality. At this, the lowest level of distinctively human social order, men obey without question the conventional or customary rules of action of the family, tribe, clan, or city. The individual shows no critical independence in moral judgment. His practical consciousness is the echo of accumulated and consecrated tribal experiences and beliefs as to what conduct

is obligatory, permissible, or unpermissible. Conduct is guided wholly by social instincts and habits. No one thinks of doing that which is right in his own eyes. In fact there is as yet no consciousness of anything as being right simply in the individual's eyes. This first stage, the morality of custom and unwritten law, is illustrated by the customs of "taboo" in vogue among savage peoples, and by the morality of peoples in early stages of civilization; for example, by the tribal morality of the early Hebrews and Greeks, and, to a very considerable extent, of the Chinese to-day. The social group and not the individual is held responsible. There is no clear distinction between the group and the individual in the matter of merit and demerit, or between morals and ceremonials, or moral and religious observances. Since human civilization is full of "survivals," one finds many traces of customary morality among the most advanced peoples. Indeed, one finds in highly civilized nations many individuals, who, for lack of inborn capacity or education, never get beyond the customary stage at all; they are guided and restrained in their actions simply by the social patterns which they repeat without thought and would not dare to question.

The passage from the first level to the second level of moral evolution is brought about by the conflict which ensues between the desires and ideas of reflective individuals, who are becoming conscious of themselves as separate and free existences, and the morality of tribal custom and law. Historical illustrations of this conflict are to be found in the "sophistical" age of Greek enlightenment, in the Renaissance, the eighteenth century enlightenment, and again, for the whole of western civilization, at the present time. A fine literary embodiment of this conflict is the *Antigone* of Sophocles. In and through this conflict of the reflective individual with traditionary custom, self-conscious rationality is engendered. Conduct first becomes a problem for thought. Without its "storm and stress," ethical self-consciousness is not born in an individual life or in a national culture. This stage of *critical* and *reflective individualism* we term the second level of moral development.

The third principal level of moral development is that on which the individual has gained a critical insight into the rationale of social morality, and consciously identifies his own moral interests and standards of action with those of society, in so far as the latter

are rational and coherent. At this level the individual becomes aware of the rational meaning and justification of social or institutional morals. He finds a spiritual life for himself through action in harmony with the social reason, that is, with mind objectified in social and historical institutions. Historically this stage is exemplified by the political and social philosophy of Plato and Aristotle, and, in part, by the social teachings of the Hebrew prophets. Its most comprehensive modern philosophical expressions are the ethics of Kant and Fichte, the *Philosophy of Right* of Hegel,[3] and the works of the English Utilitarians and the English Hegelians, such as T. H. Green, Mackenzie, Bradley and Bosanquet.

In the individual life the young man comes to see the necessity and meaning of "custom" and "law" in family, community, state, and church. He finds a more stable and rationally ordered inner life by obeying, and assimilating into his own feeling and will, social "law" and "principle" as indispensable conditions of social stability and well-being.

But on the third level there arises the consciousness of the imperfect rationality and inner inconsistency of the actual social-moral institutions, in whose formation and growth reason has only worked imperfectly and intermittently, because hindered by the partly contingent and blind character of social evolution. There is now a sense of the failure of the existing and inherited social-moral institutions and usages wholly to meet the demands of the growing spirit, unless these institutions are rejuvenated and transformed from within by the insights and deeds of the rational self.

Actual and traditional moral conventions, in custom, law, and social prejudice, tend to become ossified, and thus to arrest the free growth of personality. For example, the actual democratic state falls below the democratic ideal of a citizenship of free persons. Its working constitution fails to meet new demands of the personal life.

The actual state, community, church, or family, may retard, instead of furthering, the inward growth of a spiritual individuality. The community-life may be stagnant and mechanized. The

[3] It is true that Hegel one-sidedly emphasizes the complete rationality of social morality as all included in the spirit of the state or political society. Nietzsche, with his equally one-sided expression of the principle of individualistic self-assertion, is the foil to Hegel.

church may not respond to the higher intellectual and social conscience. The family may be blind or indifferent to the individual's spiritual needs. There may arise a clash between the conditions and usages of existing social ethics, and political life, and the "infinite" needs of the spirit; or the existing institutions may simply fail, through arrest and decay, to meet the demands of the rational spirit in its developing individuality. Such was the case in Greek life after the period of political decay set in; and the Stoic and Epicurean ethical theories were attempts to meet the moral needs of the individual loosened from his ancient social and political moorings. Such was the case in Judæa and in the Roman world at large at the beginning of Christianity. Such was the case, once again, at the period of the Protestant Reformation and of the Revolution in France. Such in many relations of life seems to be the case at the present time. The existing confusion of moral judgments in regard to the ethics of industry and commerce, of the family, of political organization, of credal subscription in the churches, of nationalism and internationalism, indicate that the inherited and conventional social standards do not meet the spiritual needs of individuality, developing under the stress of a multitude of changing conditions in the economic, political, intellectual, and religious spheres. Such confusion lays upon the thinking individual a new and inescapable burden of rational reflection and independent choice. To-day the individual is preeminently challenged to stand upon his own feet morally and to trust for support to his own rational will. The moral personality must now, as in the days of the Stoics and Jesus, seek its fulfillment and fruition in a spiritual life that goes beyond established social and moral conventions in the interest of a better social order. In all advancing civilization the individual has doubtless met this problem, and the spiritual differences between culture-epochs are largely due to the varying extent and depth with which the consciousness of the moral life as a personal problem may be felt.

At this third and highest level of moral insight and endeavor the individual fulfills the demands of the established social order, in so far as these are not in contradiction with the social and personal values, in the affirmation of which the thinking self works out, with reference to his unique situation and inner nature, the universal principles of a rational and free humanity. At this level the given customary and institutional system of moral values ceases

to be ultimately authoritative and determinative. The ideals or values affirmed by rational self-conscious spirit are indeed social as well as individual; but the distinction has now arisen between the moral life as fact and as problem.

The highest stage in moral evolution is the birth of rational self-consciousness, in which the individual becomes fully aware, at once of his moral individuality, as this is defined by his actual capacities and social situation, and of the universal human and spiritual values that demand and must win expression through the medium of this very individuality of nature and uniqueness of situation.

It is not meant that every individual, or any portion of the human race which constitutes a continuous unity of cultural evolution, must of necessity go through all the above-mentioned stages of moral development, in such fashion that all the stages can be clearly marked out. Perhaps only relatively few individuals in a highly civilized society even to-day with full consciousness reach the third level. The first level may be so much abbreviated as to be scarcely distinguishable. China has apparently not yet passed into the second level,[4] whereas Japan is moving towards the recognition of free individuality. The earlier levels persist and cut into the later in the actual movement of cultural-history. These three levels represent the *immanent logic of moral evolution.* In the race, and in the individual, morality moves through these critical phases towards free and rational personality as its immanent goal and spiritual principle of interpretation.

Society's moral function is to crystallize into definite institutional form that minimum of rules of conduct which are necessary to insure the existence and perpetuity of some measure of stable social order. Society, usually in the comprehensive forms of the state (with its subordinate forms) and the church, is the conserver and transmitter of moral tradition and of the economic, intellectual, legal and political framework of the common life. But there is in actual society as such no principle of moral discovery and progress. These originate in individuals. There may be widespread inarticulate moral tendencies and movements at work in society, for instance, in the Roman Empire at the begin-

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[4] This was written before the Chinese Revolution. Demoralization means "*de-moresation,*" the disintegration of *customary* code of morality.

ning of the Christian era. Indeed, without such ripeness of the time no new ethical movement could make headway. But the existence of such tendencies means that many individuals or groups of individuals have common aspirations and longings that await articulate expression and satisfaction. And such tendencies do not become efficient forces in social and ethical progress until they get definite and powerful expression through creative personalities who transcend, by their force in conceiving and applying an ideal, their own existential state as part of the empirical social order.

In ethics, as in religion, philosophy, and art, progress emanates from the actions of great or socially creative personalities. The mainspring of ethical discovery and progress, then, is an over-social and ideal force in the individual. Neither goodness nor truth is furthered or determined by merely counting heads. And this over-social and ideal principle of personal conduct will enjoin new social attitudes that, in reference to the existing order, represent a higher social ideal. But it may also enjoin attitudes that have no obvious application to any actual social order. It is no doubt true that the great bulk of our ideas and activities as moral beings have a direct social reference, and that, practically, it is better that the social aspects of our actions should be emphasized, since we are not usually in danger of neglecting those goods which make the strongest appeals to our private interests. This consideration does not, however, affect the principle that the free and rational activity of persons is the highest stage of ethical development.

Personality is the central and determining standard of value in all moral progress. We cannot fully describe, in set terms, what it is to be a moral personality in the concrete; but we may define a moral person as a rational self-determining individual who, by his own initiative, strives to transcend mere custom or convention and to lift himself and others into a spiritually richer and more harmonious life, while faithfully performing the duties of his station.

A clear evidence that the self-determining individual is the central principle of value in social evolution may be found in the general identification of the significance of any great historical civilization with the work and characters of its outstanding personalities. In the general mind Moses, Isaiah and the other prophets, Jesus, Paul, and John stand for the spiritual qualities

of Hebrew civilization. Socrates, Plato, and Aristotle, Homer, Æschylus, Sophocles and Euripides, stand for Greek culture. Anselm, the great Mystics, Thomas Aquinas, and Dante stand for mediæval culture. Petrarch, Leonardo da Vinci, Michelangelo, Raphael and a few others represent the civilization of the Italian Renaissance. Luther, Zwingli, Calvin, Cranmer, Ridley and Latimer represent the Protestant Reformation.

These are a few illustrations of the general principle that the worth and meaning of any great movement of human social evolution is represented and summed up in its great outstanding personalities. Social progress and social good are meaningless and unreal, except in so far as they are concreted in persons. The respect paid to personality, and the scope allowed for its free development, are the truest measures of the moral quality of a culture, the true standards of human progress. The reflective life of self-determining persons is the only absolutely worthful reality we know. Therefore Kant rightly says, "Act so as to treat humanity, whether in thine own person or in the person of another always as an end and never merely as a means," [5] and Hegel, "Be a person."

The moral development of personality is a dialectic movement or growth through contrast, in which there are two constant terms, sometimes in opposition and at other times in harmony—the individual with his unique feelings, his private desires and interests; and the social order with its over-individual demands and sanctions. As a matter of fact the conflict is chiefly between wider and narrower, deeper and shallower, social interests in which the individual's life is implicated, not between an atomic or socially isolated individual and the social order. Normally, there is no such being as an atomic individual. The individual as a rational judge of conduct in a critical situation which has a unique character, as the never-to-be repeated situation of just this person here and now, transcends the actual moral traditions of society. In this sense every consciously ethical act of a person which involves reflection and choice of alternatives has an individual and unique character. On the other hand the moral life of man is an interpersonal life. We feel both natural impulses and moral obligations to promote the welfare of other persons. The great moral leaders

[5] *Critique of Practical Reason.*

of the race have always rightly insisted that the good life is to be found in communion with other lives and in devotion to wider rational and social interests.

This mutual dependence and reciprocal influence of ego and alter or, more accurately, of the individual's various "selves," in conduct is the dialectic of the ethical life. Intrinsic ethical goods are forms of self-realization, and the supreme good is the maximum organic unity or harmony of personal life functioning in a diversity of activities. Now, it is at once the supreme paradox and the inescapable law of ethical personality that it finds the highest values of life in devotion to over-individual ends, whether in the promotion of the immediate welfare of other persons or of more impersonal forms of life, such as science, art, industry, the state, the church, the local community.

In such cases the realization of an intrinsic good involves the transcendence, in action, by the individual of his present existential state, and, in this act of self-transcendence, the immanent presence in him of a rational or universal spirit.

Ethics must, on the one hand, recognize the unique significance of the person as the source of ideal valuations and of action in harmony with such valuations; on the other hand, ethics must take account of the social institutions or culture forms, which are created and modified by the historical activity of persons, and through which these attain rational self-consciousness. The rational life of selves is bipolar—at once individual and social, in ever varying relations and proportions. The ethical life is not a special department of the growth of personality. It is the whole development of personality in relation with the historical moral institutions of family and society, state and religion, science and art.

The highest good is definable only in very general terms as the greatest possible harmony of intrinsic personal and interpersonal goods or values; and intrinsic goods we have already discovered to be manifold and various. Any disposition or activity which embodies or promotes the functioning of some intrinsic capacity of a sentient and rational self is ethically good, provided thereby some more worthful quality is not injured or thwarted. What specific quality or capacity of a person shall be judged more worthful, when the simultaneous functioning of two or more tendencies is incompatible, can only be determined empirically with reference

to the concrete and individual case. The only general criterion that can be set up is that of the greatest possible harmony, or balance and proportion, consistent with the least possible suppression or destruction of any integral personal capacity, and with the dominance of the universal or rational values of living. The ethical good is far from being always identical with empirical and obvious social good. For example, mutual personal service and intercourse, civic coöperation and social peace are ethical goods; but the æsthetic and scientific culture of the individual, his critical freedom and independence of mind, in short, individual self-reliance in judgment and action, are equally ethical goods. In ages like our own, inner self-possession and poise, and the intellectual power critically to preserve independence of thought in the face of the blind tendencies of the social mass, seem particularly important ethical goods.

Ethical values are affirmations of an ideal selfhood—a spiritual individual whose fundamental capacities get full play, whose action is reflectively or rationally autonomous, not blindly and chaotically impulsive; whose active tendencies work together toward fuller and richer harmony of insight and feeling. In specific cases the fullness of activity and harmony of feeling sought may have primary reference to the self's own internal functioning, to the harmony of its physical and psychical natures, to the like condition in other selves; or to the emotional and active relations between the self and other selves. In its more comprehensive ethical insights and deeds, the self transcends all these partial forms of moral action and feeling. It sees and affirms the relation of these partial ends as contributory to a more universal or ideal interpersonal experience, to fullness of action and balance of feeling in a harmonious totality which overcomes the oppositions of ego and alter. It is in obedience to overindividual ends or universal values that the personal life attains self-realization.

The moral person is more than a socialized individual. No one has attained full consciousness of personality, as the standard of ethical values, who has not passed beyond the demands of conventional social requirements in his moral insight. Even the principle of personal service of one's fellows, ennobling though it be, is of fullest value only when the self who serves recognizes that moral selfhood requires the independent adventure of serving with his unique individuality. If the final principle of ethical valua-

tion be the harmonious development and energizing of personal capacities to think and feel and do, this end can be served in society only by him who has found himself as a self-determining and self-transcending or progressing person, and who sees and serves the vision of an ideal society of selves, in which the universal values of justice, self-control, rational insight, wisdom and love are incarnated. The moral self is more than social, otherwise society would never rise to higher levels. Moral personality is a creative principle, by virtue of which the individual is able to go beyond what he actually is or what other selves actually are. Moral personality is a spiritual possibility of progress, an ideal that is more real and effective than the actual, an "ought to be" that breaks and remakes the "is," a dream which shatters and reshapes the brute facts of the sensuous and conventional life. This paradox of the ethical life carries us beyond actual morality to the metaphysical implications of moral selfhood. It implies the recognition in the empirical individual of a spiritual power of action that transcends the actual state of the individual life and the actual moral status of society. The life of ethical striving makes men members of a metahistorical order of reality. The perfected self which ought to be and can be, but which is not yet empirical fact, is a selfhood that belongs to a transcendent rational and spiritual order which is nevertheless immanent in the actual order. Kant was right in his insight that the moral self as the free servant of duty, the inner law of practical reason, is a member of the intelligible or noumenal order of reality. Here, at the limits of the actual, the moral self finds itself *en rapport* with a deeper order of reality and one which holds the key to the final meaning of personality.

The self, to be truly moral, must be more than moral. It must pass beyond the oppositions of good and bad, of ideal and actual, to find and live in the ultimate spiritual reality which enables the good to transform the bad, the ideal to control the actual.

The full interpretation of the meaning of moral personality thus brings us to the portals of religion and metaphysics.

The moral attitude in man is one of striving towards a state of perfection, of seeking the far country of the spirit. This attitude involves, at once, a consciousness of the goal of moral endeavor, a consciousness of the gap between the personal will and the goal it seeks, and the persistent resolve to cross that gap. Now, the whole

seriousness and significance of the moral life in man rests on the faith latent in it, not only that the goal can be attained, not only that the breach between the "is" and the "ought-to-be" can be healed; but that it is already healed, that the good is the supreme reality, that the "ought-to-be" now and eternally "is."

In short the moral attitude in man strives for a conclusion which, when reached, would be its own euthanasia, and, moreover, presupposes that this conclusion is already somehow somewhere reached. The moral point of view, then, cannot be final. Perfect goodness can be realized only in a spiritual state which goes beyond it. In this respect the religious attitude is the full fruition of the moral attitude. The religious attitude presupposes, not only that the morally good will be achieved, but that it already rules in the universe at large; not only that the right will prevail but that it must and does *now* prevail, all appearances to the contrary notwithstanding. And, in religious experience, in faith and communion with God, the individual feels himself to be in contact with, and in very possession of, this ultimate spiritual reality for which the good is no longer a far-off divine event but a present and ever-abiding reality. Nevertheless, while the religious attitude transcends and completes the moral attitude it does not do so by abolishing the latter; rather the religious attitude absorbs into itself the moral attitude. The ethical will passes into its fruition only as it is taken up into the experience of supermoral perfection. The faith in the supremacy of the moral ideal, the conviction that the "ought-to-be" really "is," does not render the moral activity of the finite self of no effect. All that this faith need imply, from the ethical point of view, is that, in his moral activities, man is working in harmony with the supreme cosmic meaning. This is the expression of the insight that a life which has lived through and transcended its moral struggle, is a richer, more self-complete form of goodness than one still immersed in the struggle, still fighting with uncertain issue. In communion with the highest good man transcends the moral point of view. Religion means, in its highest forms, the conviction of the final conservation of personal values in a harmonious experience in which the "ought-to-be" no longer is the controlling principle, since what ought to be is transcended and fulfilled in what is. The ultimate reality, which the moral agent and the philosopher seek, is found as immediate spiritual experience in all genuine and spiritual religion.

CHAPTER XXXI

FEELING AND VALUES

All feeling is either incipient or completed action. No sharp line of demarcation can be drawn between affection and conation, feeling and will. Volition is incited by affection. The raw materials of action consist of the primal feeling-impulses—the instincts and desires, and the subjective terminus of action is always an immediate feeling-state or affection, in which consciousness is suffused with satisfaction or rent by dissatisfaction, according as action has proved successful or the reverse. In the life history of the individual and the race the emotional and appetitive tendencies antedate, in their manifestations, the specifically intellectual, and in the purposive activities of intelligent life the intellectual element is continually being made subservient to emotion. Feeling or affection is, preëminently, the individuating factor of consciousness. The primacy and uniqueness of the self is primarily that of a felt unity, not a reflectively cognized unity. Whereas perception and reasoning are regarded as shared and public processes (of experience), emotion—and, indeed, all affection—is private, unshared, exclusive. You and I may agree that we perceive the same beautiful maiden, but I can never agree that our love for her is the same. My felt aspirations after knowledge or fame are my own private experiences. The individual's affections and emotions are the matrix of his consciousness of selfhood. Moreover, besides their individuating function in their centers of origin, the elemental emotions are individuating and exclusive in reference. The object of the emotional reaction is always individualized. No one fears, hates, loves, or envies things in general. One fears, hates, loves, or desires always a particular thing or person. The object of emotion is the object of an exclusive interest. We shall see, however, that the affectional life is also capable of generalization and that the "sentiments" may be regarded as generalized emotional tendencies. The emotional life takes on ideal values,

it acquires social value and meaning, just in so far as it is sublimated and transformed into rational attitudes. Indeed, the sense of *general values* attributed to objects of direct experience or of idealizing thought is, perhaps, the most striking case of emotional generalization. Just as the "concept" is the "percept" generalized by the activity of reason, so the "sentiment" is the emotion universalized by reason. Predication through sentiments or judgments of feeling are the ultimate sources of those appreciations, or affirmations of value, by which experience finds its final appraisal and meaning for personality. The history of the felt valuations that are expressed in the lives of individuals, societies, and culture-systems may be traced out, and one may find a logic or rationale in the evolution of these emotional appraisals; but, in the last resort, for the individuals, societies, and cultures in question, the appeal in regard to the relative values of activities,, whether pertaining to scientific, moral and legal, religious, or æsthetic affairs, or to the intimately personal matters of sex and family, is always an appeal *to judgments of sentiment or feeling.*[1]

Affection or feeling is always the reference of some psychical content—for instance, a plan of action, an idea of past action or of a future state of the self, in some practical and social or contemplative relation—to the immediate unity of the self's life, and this reference is always accompanied by pleasure or pain, harmony or discord.[2] But feeling is far from being solely a matter of pleasantness and painfulness, although pleasure and pain are its most generic attributes. Pleasantness and unpleasantness of feelings differ qualitatively at various levels of psychic development. There is a wide range of qualitative diversity, from the sensuous pleasures of mere touch to the ideal pleasures of logical reasoning, moral heroism, or philosophical speculation. For example, the sensuous pleasure of eating plum-pudding and the ideal pleasure of reading Matthew Arnold's poetry are so different qualitatively as to be incomparable. The qualitative differences in feeling and, hence, in pleasantness and unpleasantness, are dependent on the specific differences of psychic contents and activities, as these are

[1] In the present work the term "feeling" is always used as equivalent to "affective consciousness."

[2] "Feelings are immediately experienced qualities or determinations of the ego. They are consequently absolutely subjective." Th. Lipps, *Leitfaden der Psychologie*, pp. 16, 17.

experienced in their relations to the unity of the self. I desire to act in a certain way—it may be to lead a dance or to lead a political party. My situation develops in such a manner that the thought contents presented in my mind engender the feeling of the actual failure or success of my desire and plan. In such a case the reaction of the self as a unique feeling center carries with it a pleasure or pain distinct in quality from that which would follow on my success or failure in getting invited to a fine dinner or in writing this chapter. Each activity or thought-content gets its own specific emotional coloring in relation to the massive central feeling reaction. Feeling is a function of two variables, the specific ideational and motor content of consciousness, and the unique emotional selfhood which has these contents. The presentational and reflective contents of personal feeling include, of course, a vast range of experiences—organic sensations of many sorts, such as visceral and thoracic sensations, sensations of strain, tension, trembling, coldness, hotness, etc. We are not concerned here with psychological analysis or physiological explanation of emotions. From our present standpoint, the affectional or feeling qualities, which color these psychic contents, are the emotional reactions of the self. By these reactions the self suffuses its presented contents with appreciations and values. These emotional reactions express and differentiate individualities. One man carries out the train of activities involved in angling with the fly in a cool, deliberate fashion. His emotional reaction may be deep, but it is placid, or its exuberance is held in reserve until the "game" is over. Another explodes emotionally with every variation in his angling fortunes.

In a similar fashion, intellectual contents or "ideas," are presentations or psychic facts to which the self as central mass of feeling reacts. The ideas are colored, shot through, sometimes even completely suffused and transformed, by the emotional reaction of the self. In this case, just as in the case of overt action, the intimate and immediate meanings, values, or appreciations, which ideas get, arise in the central self-feeling, and the differences in degree and kind of the emotional response which different individuals make to presented ideas notoriously vary, as every observant teacher knows well. When the psychic content in idea or movement is one's own, and is felt as such, it is suffused with feeling of some sort and degree, and the sort and degree of feeling is the index of one's emotional individuality.

When the element of reflective consciousness is absent from them, the emotional conative tendencies of the self are simple impulses and instincts. Impulse is a single congenital tendency, and instinct a train of congenital tendencies, to act without conscious purpose or foresight. In the development of the self's affective life, thought reacts upon and modifies the elemental feeling-impulses, instincts, and desires. At the more reflective levels of personal life, overt action and trains of thought are incited, impelled, and accompanied by feelings or emotional states more complex, more generalized, and more stable than the rudimentary impulses and instincts. Under the influence and direction of reflective thinking, the elemental feeling-impulses and desires become more articulated and harmoniously organized. Through inhibition, organization, and reflective enlargement, they are transformed into more permanent intellectualized emotional dispositions. These idealized and organized emotional tendencies we have called "sentiments." Their development can be illustrated in the growth of any feeling. Sexual impulse and crude emotion, for example, becomes transformed into romantic love and enduring passion for an individual. Curiosity becomes the stable sentiment of wonder, the animating spirit of scientist and philosopher. Mere "organic" sympathy becomes the habitual and intelligent attitude of the enlightened philanthropist and social worker, the religious emotion of fear is transformed into reverence and adoration.

At the highest stage, no less than at the crudest, human action is incited and impelled by feeling; at the crudest by mere impulse and appetite, at the highest by ideal sentiments. At first the goal of action is sensuous satisfaction, at the last it is the harmonious and highly organized emotional experiences of love, friendship, fellowship, delight in the discovery or possession of truth, the joy of communion with God, the pleasure of beauty.

All along the line feeling is fundamental in the self. The primary sense of the unity of selfhood is in feeling. The basic relation to other selves (sympathy or antipathy) is a feeling attitude. Every kind of activity is incited by feeling and finds its fruition in feeling. We are in quest of insight into the nature of self as rational personality. We shall, therefore, consider only those types of feeling which seem likely to shed most light on our object. These are æsthetic emotions, and inter-personal emotions.

Æsthetic feeling is particularly significant, for it is, *par excellence,* an intellectualized and organized emotion or sentiment, and is at once personal and impersonal, individuating and universal. While all emotion is individuating, in the sense that it is the expression of the individuality of the subject and refers to an individualized object, æsthetic feeling is not individualistic, since it is devoid of self-consciousness or deliberate self-seeking. The sentiment of beauty aroused by a specific object may be highly individualized, inasmuch as the beautiful object possesses a high degree of individuality; but the sentiment itself is the reverse of individualistic. It is, rather, selfless in its tone.

Æsthetic feeling, at its highest level, is the reference of an intrinsic or immediate value to certain experienced objects. It is this judgment of intrinsic value which concerns us in our inquiry as to the significance of feeling for a philosophy of personality.

At once there arises the need for distinguishing between the concrete æsthetic emotion, that is, the individual's pleasure in enjoying beauty, and the æsthetic appreciation or judgment of æsthetic value involved in it.[3] Our actual æsthetic pleasures include nonæsthetic factors of purely sensuous origin. An æsthetic emotion always is pleasurable, but by no means all pleasures are æsthetic.

In our concrete emotional experiences, æsthetic and nonæsthetic pleasures may be variously commingled. The pleasure with which I view an artistically arranged dinner table is a fusion of a genuine æsthetic sentiment with anticipated gastronomic delights. Romantic love contains an æsthetic element, but its pleasureableness is also in part of purely sexual origin.[4] The attempt to separate the nonæsthetic from the æsthetic factors in an experience which is qualified by the feeling of beauty is without doubt a difficult undertaking. Are pleasures of pure sensation to be regarded as devoid of all æsthetic quality? Is my delight in the greenness of a field or the cheerful warmth of the firelight unæsthetic? When the beloved appears beautiful only to the lover is the feeling of beauty nonæsthetic or does sexual attraction create the illusion of beauty? It seems to the writer that,

[3] On this distinction see Groos, K., *Der Æsthetische Genuss.*

[4] So strong is this factor in so-called æsthetic pleasures that some thinkers have been led by it to trace all æsthetic feeling to a purely sexual origin.

while a sensuous basis is required for æsthetic emotion, sensation *per se* is not æsthetic. If the green field is beautiful it is because it *means* more than greenness. The beloved one is beautiful because the lover's emotion is more than mere lust. The lover is transformed into a selfless devotee by the very sentiment which transfigures the object of his devotion.

It is this mixed and varying composition of so-called æsthetic emotions that is responsible for the proverb, *"De gustibus non disputandum."* The tastes which vary most widely are probably the nonæsthetic sensory factors. The æsthetic factors of form—measure and proportion, organic unity-in-variety or individual wholeness, rhythm, etc.—are the objective or shareable factors in æsthetic pleasures. The common recognition that there are standards of good taste, however difficult to define, is an implicit admission of æsthetic objectivity. The actual existence of beautiful, picturesque, sublime and tragic *objects* of enjoyment is recognized. This recognition implies a certain kind of reality in æsthetic objects. What, then, is the objective or universally significant factor in the æsthetic emotion?

The objective factor in æsthetic emotion can be determined only through an examination of the æsthetic judgment itself. Beautiful objects are regarded as self-existent and socially shareable objects.

Since we are not dealing with the psychology of beauty here, we ask, not why are certain objects felt to be beautiful, but, what kind of judgments are implied in æsthetic feelings, and what is their meaning for personality? Æsthetic pleasure is differentiated from nonæsthetic pleasure by its disinterestedness and potential objectivity or universality. The latter is a note of all æsthetic enjoyment. As Kant rightly saw, enjoyment of beauty is a disinterested pleasure, a selfless and shareable emotion. *Hence the self attributes the quality of beauty to the object, not to himself.* In this feature of æsthetic feeling lies the first ground for the objectivity of æsthetic judgment. The normal attitude of the observer is expressed not thus, "I feel beauty," but thus, "The thing is beautiful." Hence the felt beauty is conceived to be shareable and social, and beautiful objects are forms for the social expression of emotions. Beauty resides in the expression of a feeling in sensuous objects, not in purely subjective feeling. On the other hand, the object qualified as beautiful is always

individual. Æsthetic appreciation is intuitive or perceptive. One may come to enjoy Wagner's operas or Botticelli's paintings or Browning's poetry the more as a result of study and reflection. Nevertheless, the æsthetic appreciation of these art forms is, as direct experience, always intuitive or immediate and nonratiocinative. Reason may enter into it, but æsthetic feeling is the concrete intuition of an individual whole. The æsthetic intuition shares with truth and goodness the quality of having intrinsic or *immanent value*. "Beauty is its own excuse for being." "The beautiful is the self-existent pleasant." (F. H. Bradley.) Beauty, truth, goodness, love, fellowship with God, seem to be the chief types of intrinsic spiritual values found in feeling. These values interpenetrate and share in one another's nature. Mankind has recognized the beauty of goodness in character, the beauty of holiness, and even the beauty of truth. Again there is believed to be a truth in beauty, in goodness, and in religious communion. The æsthetic judgment, in particular, implies that there is truth in æsthetic emotion.

CHAPTER XXXII

THE INTERRELATIONSHIPS OF VALUES

It will further our present aim to examine briefly the relations between the values of beauty, truth, and goodness. The beauty which we attribute to truth seems to be due to an intellectual pleasure which arises through the discovery of harmony and proportion in the elements of a thought process, and in its outcome, viewed as an individual whole. When the movement of reason proceeds with order and symmetry to a balanced totality of insight, as in a mathematical theorem, the process and the result give æsthetic pleasure, because the harmony and consistency of the factors justify the whole. A bare abstract principle or law is not beautiful, but a group of concrete facts, or of more particular truths, seen in the light of a unifying and organizing principle becomes beautiful in its unity. The vision of unity-in-variety, that is of concrete individuality, gives rise to æsthetic feeling. Nevertheless, there is a contrast between the beauties of knowledge and the purely æsthetic beauty. For the systematic and harmonious whole of knowledge is never present as a single intuition. It remains an ideal. Knowledge is always ragged at the edges. It promises more than it performs. The single truth or group of truths always point beyond to an uncompleted system of truth.[1] The emotional value of truth is never more than partial and promissory. The actual attained truth ever points to its own self-transcendence in the unattained reflective grasp of reality as a harmonious totality. The object of æsthetic feeling, on the other hand, for example, Shakespeare's *Tempest*, Shelley's *Skylark*, or Keats' *Ode to a Gercian Urn*, has an individual self-completeness and self-sufficiency. In this nearer approach to *self-complete individuality* consists the greater emotional fullness of æsthetic feeling over that accompanying a theoretical cognition.

[1] This idea is the source of the philosopher's quest for the vision of the *whole* in thought.

The æsthetic object is more nearly a self-sufficient whole. Similarly, the beauty of goodness consists in the pleasure due to the supermoral harmony of will and deed, of ideal and achievement. Beauty exists in character only when the moral struggle is over.[2] It is only goodness which has fully attained the end for which moral obligation exists that is beautiful. Only the harmonious will is beautiful. When the self has reached this stage it has transcended the merely moral attitude, and goodness and beauty have become one. They constitute together a state of harmonious perfection, the fulfillment of personality.

The claim to truth or objectivity which the æsthetic judgment makes is shown in the recognition of an obligation on the part of the observer to conform to certain standards of taste. When we inquire as to the source of these standards we must have recourse again to personal experience. For the characteristic of the beautiful object is that it yields disinterested pleasure. Hence, the final criterion of æsthetic valuation cannot be found in any definition of the æsthetic object as having an existence independent of human experience. Here, as elsewhere, the last court of appeal seems to be the experience of an ideal self. But, since this ideal is realized only gradually and progressively, and amidst a great variety of individual characteristics and environmental conditions, the criterion of the æsthetic values and the significance of the æsthetic experiences, are finally determined by one's notion of the *spiritual vocation of man,* that is, by one's conception of the meaning and destiny of personality.[3] This conception may be, in many cases, only a latent presupposition. Even thus, it is the final determinant of one's æsthetic, as well as of one's specifically moral, valuations. To the man who consciously or unconsciously practices the theory that mere sensuous pleasure is the end of life, æsthetic valuation ceases to be æsthetic, and beauty becomes a mere minister of pleasure. Egoistic hedonism in ethics becomes in æsthetics the denial of intrinsic beauty. This degradation of art to an instrument of crass utility or sensuous indulgence has led fine ethical natures such as Plato and Ruskin, and, still more one-sidedly, Tolstoi, to judge all art in direct relation to its immediate moral efficacy. But, in truth, the æsthetic life is not

[2] *Cf.* Schiller's conception of the "*Schöne Seele.*"

[3] In this connection Schiller's treatment of the place of art in human life remains unsurpassed.

subordinate to morality. They are coördinate aspects of the vital unity of the personal spirit. Æsthetic appreciation is an intrinsically worthful function of personality. Æsthetic endeavor and enjoyment are ethical goods worthy of pursuit on their own account. Moreover, as we have already noted, æsthetic creation and appreciation have a moral side, and beauty is a medium through which the ideal freedom and activity of the human personality are expressed in sensuous form. Hence, beauty is an ethical or spiritual force in human life. The creation and appreciation of beauty are rooted in the movement of persons towards richer and more harmonious interpersonal experience. The æsthetic object expresses, in a typical and significant individual form, some phase of personal experience or emotion. Man is essentially social and must express in some fashion his most inward, full, and intense feelings. The artist or poet, who may sacrifice health and creature comfort and live in poverty, in order that he may express in sensuous form some vision or ideal of beauty, thereby actualizes one phase of the higher or spiritual nature of man. His efforts may have a higher moral quality and more worthful ethical consequences than those of a moral reformer. For, in the inward attitudes and experiences of selves, truth, beauty, love and goodness interpenetrate and become one. There is a creative imaginative quality akin to the æsthetic quality in every vital theoretic and practical expression of the spirit. Every expression of spiritual activity, whether in religion, art, or philosophy, is the effect of the striving of the individual to communicate ideal values through symbols. All such supreme expressions of the spirit are compacted of the imagination, and, hence, have an æsthetic character. In every utterance and deed the spirit employs the sense world as its instrument and so must express itself in symbolic pictures and parables.

The æsthetic observer, as lover of beauty, lives over in his inner experience the vision and feeling of the creator of beauty in objects. The beautiful object has no existence for him until there has arisen in the intuition of the observer a sympathetic reproduction of the ideal feeling embodied in the work of art. Of course, this does not mean that the observer must reproduce exactly the mental states of the artist. He may not be able to relive the technical steps of production at all. But he must possess in some degree a sympathetic insight into the artist's meaning,

and be able to recreate in his own soul in some measure the spiritual attitude of the author. Æsthetic enjoyment, so far from being a merely passive reception of external impressions, is the active and sympathetic re-creation in the soul of the observer of a spiritual experience, through the medium of an outer symbol. In so far as the observer of beauty possesses an æsthetic appreciation he sees into the soul of the artist. He is lifted out of his narrow selfhood and becomes one with all kindred lovers of beauty. My appreciation of beauty in painting, in poetry, or in nature, must always be uniquely my own; but, in so far as this æsthetic experience is pure and free from low motives, I am impelled to seek for others to share it. We normally desire that others shall feel the pure delights that we feel and that their eyes shall be open to the glories of our own visions. Æsthetic appreciation brings a heightening and expansion of life. The self experiences in it an emotional widening and deepening,

> Are not the mountains, waves, and skies a part
> Of me and of my soul, as I of them?

There is an actual muscular and vascular expansion of the bodily organism in æsthetic feeling.[4] There is a trend of bodily uplift, as well as of spiritual elevation, in the contemplation of a glorious mountain range.

Æsthetic feeling is over-individual in the sense that through it we burst the bonds of our narrow empirical individuality and are carried out into a wider and more harmonious life. Æsthetic enjoyment liberates us from the petty interests of our everyday selves. In the contemplation of beauty and sublimity, whether in art or in nature, we are freed from the vulgar and the commonplace, from the inharmonious clash and jar of actual existence. We are taken out of our ordinary selves and breathe a larger and serener atmosphere of harmony and freedom. In the region of beauty the ideal is not divorced from sense-experience, as it is in the regions of science and morals. In the feeling of beauty ideal and actual are present in a living unity of experience. There is here no conflict between fact and ideal, no disharmony of achievement and aim. Hence the purity of æsthetic pleasure.

[4] *Cf.* K. Groos, *"Der Aesthetische Genuss," Fünfte Kapitel;* Vernon Lee and J. Anstruther Thomson, *Beauty and Ugliness.*

No one has better stated these characteristics of æsthetic appreciation than the German poet Schiller in his "Letters on the Æsthetic Education of the Human Race." "Beauty is the work of free contemplation. With it we step into the world of ideas without having left the world of sense." (25th Letter.) "For Art is a daughter of freedom and from the necessity of the spirit, not from the needs of matter, does she receive her prescriptions." (2d Letter.) "Beauty is Form since we contemplate it, Life since we feel it. Beauty is at once our state and our deed." "Beauty shows that passion does not exclude activity, matter, form, or limitation infinitude—that, consequently man's inevitable physical dependence need not abrogate his moral freedom." (25th Letter.) The unique value for personality of æsthetic feeling consists in its living and self-sufficient presentation of an ideal and universal type of experience in the concrete harmony of an individual whole suffused with emotion. The feeling of beauty which qualifies our intuition of a painting, a poem, or a landscape, seems to be complete in itself. It needs neither justification nor qualification. The experience is a whole, at once individual and absolute, immediate and self-contained. The feeling of the sublime, on the other hand, seems to suggest more than it embodies, and so to carry the mind beyond its present experience. It lacks the self-sufficingness of the feeling of the beautiful and has a closer kinship with moral feeling. Hence Kant said—"Two things move me to awe and reverence, the starry heavens above me and the moral law within me."

Æsthetic feeling, then, is both individual and universal. It is a single perfect and immediate experience, carrying its value within itself and, thus, individual and complete. It unites, in the harmony of an immediate wholeness of feeling, the unity of thought and the variety of sense-experience, which are everywhere the two poles of the personal life. And the greater the purity of the æsthetic experience, that is, the more fully integrated it is as just a feeling of beauty, the more clearly does its universal character stand forth as "disinterested" or selfless, since it is the embodiment of the ideal or "meaning" of personality. The æsthetic intuition has a universal or ideal quality, and in æsthetic theory this side of the experience has been designated *the characteristic* in expression. For example, the drama expresses universal or typical aspects of personal character. The

characters are individuals, they each have a "local habitation and a name," but they are the embodiment of typical human experiences and situations. Hamlet is the thinker paralyzed by overmuch reflection, in a situation which demands action. Faust is the typical modern man, freed from all moral and religious traditions and seeking an absolute, soul-satisfying experience of enjoyment under the limiting conditions of earthly life.

In Greek Tragedy we have the conflict of ethical institutions, as of the family and the state in the *Antigone,* worked out in individuals. In modern tragedy the persons who are the center of conflict stand more for themselves. They are no longer merely the vehicles of struggle between social and ethical institutions. In *Macbeth,* in *Hamlet,* in *Faust,* the struggle is chiefly inward and spiritual. The nature and destiny of personality is itself at stake, torn as it is by a conflict between emotions and impulses universally human.[5] The modern lyric conveys typical moods of a soul. Its note is personal. In Wagner's music-dramas we have the union of dramatic individual characterization with that yearning for a universal and infinite experience, which music is so well-fitted to express.

The presence of a universal or over-individual quality in a concrete and individual intuition is further illustrated in the love for nature—the passion for the mountains and the sea and the primeval forest. Nature, as object of æsthetic contemplation, liberates us from the insignificant details and the harassing commonplaces of daily life. In the contemplation of nature we are carried out into a larger life by which our experiences are enriched and the conflicting tendencies of our spirits are harmonized. And this life of nature to which we become united by feeling is, for us, conscious and quasi-personal. The nature-lover enters into intimate and direct relations with the spirits of the mountains, the forest and the streams, and, so long as he remains in the attitude of sympathetic appreciation, these spirits are real for his experience.

We are now in a position to determine more closely the relative functions of cognition, morality, and æsthetic emotion in the organization of personality.

In theoretic cognition the self reconstructs and interprets, in

[5] See A. C. Bradley, "Hegel's Theory of Tragedy," *Hibbert Journal,* Vol. ii, No. 3.

terms of reflective principles, its universe of sense experience. The self thus reduces chaos to order, variety to identity, discord to harmony. In so doing the self is finding its rational nature in the world and thus, in its quest for truth, finding itself in a larger sense, by going beyond itself as mere sensory organism. The function of cognition is the organization of experience in terms of reason, which is, at the same time, the organization of the rational self, the fulfillment of the rational will. This reflective organization of the sense world is achieved at a certain loss. Cognition ever tends to sublimate the living, thronging variety of perceptual experience into a bloodless unity and identity, to transform the world of dynamic and vital change into a dead and colorless immobility. With progress in the organization of cognition the gap seems to widen between the warm manifoldness, intensity, and movement of living experience and the cold sameness, pallidity and inertness of theory. The "universals" of science, divorced from immediate fact, seem abstract and unreal.

In moral activity the individual strives to bring his will into harmony with the rational and social conditions of goodness, and to reconstruct his own inner world of desire in harmony with the ideal rational and social values of life. But here, too, the gulf yawns between the sensuous fact and the ideal principle. The deed falls short of the aim. The dialectic opposition of ego and alter, which lives within the self, since the self is a social being, is never wholly overcome. Sense cannot be quite sublimated into spirit by moral endeavor. Struggle and opposition prove to be ever recurring conditions for the exercise of the moral will. The beautiful soul, which naturally and spontaneously utters itself in action that is perfectly good, and whose inner experience knows no divorce between aspiration and deed, remains an unrealized ideal. If the beautiful soul were realized fact the moral and æsthetic would therein coincide. Sensuous impulse and ideal aims would wholly interpenetrate and fuse together. The contrast between thought and sense, ideal and actual, would have collapsed into one immediate and perfect individual whole of experience and will. The values of truth, goodness, and beauty would completely coincide.

In the absence of such perfect coincidence, the æsthetic intuition of beauty, in nature, art, and human fellowship, affords to

us, by way of concrete experiences, forefelt anticipations of an ultimate harmony of sensuous existence and ideal values, of "nature" and "reason." For the æsthetic intuition is an individual and self-sufficing unity of thought and immediate feeling, of mind and object, of value and existence. In it the discordances of experience, are, for the time being at least, overcome. The æsthetic experience is a self-complete individual whole or harmonious unity-in-difference. It is wholly self-contained and of purely intrinsic worth. In æsthetic feeling our personalities are immersed and fulfilled in impersonal experiences. And these experiences are concrete and individual wholes, felt unities of the manifold, having a certain universal quality or meaning. The landscape is a harmonious unity of field, flower, and trees, of hill and vale, of brook and bank. The picture is a harmonious unity of colors, forms and human expressions. The poem is a unity of articulate and rhythmic sounds, feeling, and thought.

In contrast with theoretic cognition, in which the single element always stands in a systematic connection, such as that of a causal interrelation or a syllogism, and this connection again in other connections, which are never presented as an absolute and complete system, the æsthetic intuition appears wholly self-contained and of purely intrinsic worth. The value of the beautiful object lies not in its logical, causal, or economic relations to some one or something else, not in its suggestion and demand of a completer whole, but in the direct and individual embodiment, in this single and isolated experience, of *the harmony of fact and value.* The lovely mountain cataract fringed with primeval forest is a unity of form, color, sound, and movement, an interplay of sensuous qualities without purpose or relation to our work-a-day strivings; hence we feel its beauty. In union with it we are all liberated from the crass actuality of making a living.

By contrast with the moral volitions the æsthetic intuition seems complete, since it is a state of perfect fulfillment in which there is no struggle to reach a goal, no gap between will and attainment. In the selflessness of devotion to beauty the individual will no longer wills anything, but is satisfied and fulfilled by its unity with the object.

Unity of the manifold or harmony, disinterestedness or selflessness, and individual completeness of its objects—such are the characteristics of the æsthetic experience. One other remains to

be mentioned. The beautiful object may be a creation of art or of the imagination, and need not stand in any close relation to the actual world. Beauty need have nothing to do with man's work-a-day purposes, or appetites. The nature we love is not the nature of the agriculturist or the lumberman. The novel, the drama, or lyric poem, are not the stories of deeds and feelings of actual persons whom we know and with whose fortunes our own are implicated. Even the "realistic" novel, if a work of art, portrays a drama of human life complete in itself and cut off from our personal entanglements. It is just this absence of relation to and dependence on the actual needs, disagreeable facts, and ordered cares of our own lives which gives the charm to objects of æsthetic intuition. In them man is liberated from the thraldom of the work-a-day and commonplace world of weary trivialities, cares, and jarring discords.

The æsthetic experience, richer and more self-sufficing than theoretical cognition and moral activity, seems to afford hints of how, in a higher harmony of experience, the theoretical and practical functions of personality might find union and consummation. Nevertheless, as Hegel said, the limitations and hindrances imposed upon them by their sensuous materials prevent the æsthetic objects from expressing the full life of spirit. Spirit can find and fulfill itself only through spirit. Æsthetic feeling is one specialized form in which may be experienced the unity of the ideal and actual, the harmony of thought and sense. The materials of æsthetic expression are not wholly fluid to ideal feeling. The materials in which architecture and sculpture work offer most resistence to the transparent expression of ideas and emotions. Architecture can express sublimity, grandeur, aspiration, even grace, but it fails to convey the complex shades and finer moods of human feeling. Sculpture can convey grace and beauty of form, even struggle and power and agony in human fate, but only in arrested immobile shape.. It fails to render the dynamic and complex experiences in the development of human situations. It conveys no ebb and flow of emotions. The freest and most ideal arts are poetry and music, in which articulate and significant rhythmic sounds can express tragic situations, unfold dramatic movements, and depict evanescent moods of the soul. Music seems to yield the fullest expression of the infinite and the cosmic in yearning, pathos, striving, aspiration, consum-

mation and adoration. But no single type of æsthetic expression is ever wholly adequate to the rich complexity of personal experiences, volitions and sentiments.

In the first place æsthetic expression and emotion are not independent of moral experience. The harmony of feeling which engenders the judgment of beauty is, indeed, not the same as moral feeling. On the other hand, the most significant and most permanent types of æsthetic objects—in the fine arts, literature, and music—always show moral proportion; they are always in harmony with the moral order of human life. The greatest art such as the tragedies of Sophocles or Shakespeare, Goethe's *Faust,* or Dante's *Divine Comedy,* are true to the ethical destiny of man as a spiritual or self-determining being, living in an ethically ordered Cosmos. The purely æsthetic attitude leaves untouched the problem of the relations of æsthetic experience to reality. And yet the highest beauty must be true to the meaning and destiny of the spirit. Beauty, to be a satisfying object of experience, must be grounded in the reality of the world order. It must bear witness to the meaning and destiny of spiritual selfhood. When we have said this we have raised the whole question as to the place of personality in the cosmos. This ultimate issue I shall not discuss at the present juncture. I desire, rather, to insist here that man cannot satisfy his spirit with beautiful illusions. The æsthete who cultivates the beautiful, without reference to its moral proportion and truth, finds his enjoyment turn to Dead Sea fruit. A world of beautiful illusion, however fair, would lose its fairness if it were wholly out of harmony with reality. Indeed, the positive presence of moral truth and the reference to the nature of reality which are involved in the ideal significance of beauty are clearly indicated by the over-individual demand for a selfless devotion, free from utilitarian taint, which beauty makes upon our intelligent wills. In this respect the desire for and the devotion to beauty are expressions of an ideal or absolute value which the personality serves and realizes just through the contemplation and creation of beauty.

Æsthetic values, then, are not wholly self-sustaining. In art the ideal is present and is treated as semblance.[6] The demand

[6] *Schein* it is called by Schiller and von Hartmann. Æsthetic feeling can approve the living only as appearance, the actual only as ideal. Schiller, 26th Letter.

of the spiritual self for a richer, more human reality can never rest satisfied with a dream-world, even of beauty. When we are immersed in æsthetic contemplation we do not raise the question as to the reality which our intuition symbolizes; but when the question is once raised, as it must be if beauty be vital for the furtherance of the spiritual life, the fundamental postulate of spirit's value to reality necessitates the assumption that experiences so integral to personality as beauty and sublimity must symbolize a harmony of organization that inheres in the very constitution of reality. The fuller and completer harmony of personal consciousness and ultimate reality must transcend the merely æsthetic attitude. On the other hand, the element of æsthetic feeling is an integral factor in every intrinsically worthful and creative function of personality. An æsthetic element interpenetrates all intrinsic personal values. Both knowledge and ethical conduct involve, in their fulfillment, æsthetic factors. For they are coördinate manifestations of the undying quest for harmony, for the ideal unity of the manifold, that runs through the whole spiritual life. The goal of all theoretical and practical activity is an individuated harmony of experience, that is, of immediate feeling suffusing a mediated system in which the varied contents of experience are taken up and unified into a rational totality. And so we find æsthetic sentiment entering into and absorbed in the feeling for nature, in romantic love, in friendship and in religious devotion.

While, then, æsthetic intuition is a more complete and individual whole than either discursive knowledge or moral goodness, it cannot be said to absorb into itself and transcend these essential factors in the personal life. Æsthetic intuition does suggest the formal nature or general character of a more complete, self-sustaining and universal intuition or experience, by which the human spirit may enter into the supreme meaning of reality. And the lover of beauty may see in the æsthetic insight the suggested outlines of a cosmic harmony—of a world life proceeding from and sustained by the creative intuition of a Supreme Spirit in whom truth, goodness, and beauty coincide. In the most liberal forms of religious devotion the reality of this—the unified ideal of personal values—is presupposed as in religious faith it is affirmed.

The Interpersonal Emotions

The completest fruition of the feeling-life is found in interpersonal emotions and sentiments. Sympathy, friendship, sexual and family love, loyal love of country or a cause, devotion to God, these are the fullest, richest, most self-sufficing emotional experiences and attitudes of persons. These feelings furnish the strongest and most enduring motives to action. They are the most lasting incitements to will. And it is in these interpersonal emotions that man finds his most satisfying and most nearly self-complete values. The unity of two equal and noble souls in a lasting friendship, the lasting harmony of feeling and will in the devoted love of man and woman, where the grace and delicate fragrance of the woman soul is joined to the strength and vigor of the man soul, the self-sacrificing devotion of mother to child—such are types of feeling which have all the self-complete individuality and disinterestedness of æsthetic experience together with a fullness and a depth beyond all mere æsthetic emotion.

Friendship, love, loyalty and religious devotion are at once the most universal, the most highly individualizing, and the most self-complete forms of emotional experience of harmony. They yield the most highly individuated and concrete kind of knowledge—the sympathetic intuition of other selves. Mankind has, in calling these attitudes "beautiful," recognized their kinship with æsthetic feeling. In these interpersonal emotions, for which we may employ the generic term "love," selves are directly and immediately unified without dependence on any external conditions of union. Love is the immediate intuition of spirit in spirit, of self in self. *Interpersonal emotion is the completest, concretest and most highly individuated experience of unity-in-difference, the harmony of self and other self.*

Friendship, love, fellowship, religious adoration and communion, are the most richly significant and intrinsically worthful types of the over-individual unity and harmony of persons. They seem to afford the fullest adumbrations of an ideally self-complete experience. In love, friendship, and fellowship, the individual self's inner world is expanded and unified by going outside itself and living for and in another selfhood. Hence these feeling-states seem absolutely worthful and self-existent. They are often imperfect and mutable, and sometimes they seem non-

moral; nevertheless, in their immediate presence and possession change and imperfection are forgotten and the person seems to find the perfect and lasting values of experience. Indeed, these personal relationships are all akin to religious feeling and religion is, perhaps, simply personal emotion at its highest level of idealization. The higher emotional states or sentiments—friendship, love, religious fellowship and adoration—do not involve the merging of the persons related by them into one another. In these emotional unities persons are at once differentiated and united. These higher emotional states are the richest, most concrete, most highly personalized experiences of identity-in-difference. They are most concrete, since, while they are states of personal feeling, this feeling carries in its heart the unique cognition of another self, and from it there flows spontaneously action to express and maintain the emotion.

In religious love or devotion this principle of the emotional unity of opposites, of felt identity-in-difference, seems to burst the bonds of finitude and mutation and to touch the perfect and eternal. Throughout the history of humanity we find that wherever man awakens to even the most vague and intermittent consciousness of the psychic bonds which hold him to his fellow and which constitute the emotional basis of society, he affirms the same principle in his relations with the supreme ideal—with the God conceived as the source and goal of the human ideal. Imperfectly conceived, mutable, fruitful of error and crime though they be, the unifying bonds of personal emotion are ever projected into and clothe in living form the ideal of the eternal, immutable, and perfect, as somehow one with the temporal, mutable, and imperfect.

Such being, in general terms, the place of feeling in human experience and its function in the life of personality, feeling must inhere in the ultimate reality. The universe must feel; and if there be a universal spirit whose experience is the unifying central life of the cosmos, this spirit must feel, in a manner analogous to our feeling, and hence must be a self. Only a self can feel and only a psychic center which feels can be a self. What are for us pleasure and pain, joy and sorrow, indignation, hatred, love, devotion, beauty, must somehow enter into his life. And we may venture to affirm that the highest, most abiding, full and comprehensive states of feeling will enter into the absolute feeling with

the least transformation. What sensuous pleasures and pains can mean positively for a cosmic or universal self it is impossible to say; I have no inkling of what my toothache or hunger may mean for God. But a noble sorrow, a deep sympathy, a strong friendship, a devoted love, a persistent devotion to justice and truth—such personal emotions of appreciation that control action and give worth to living must have a very positive meaning for a universal self. While we must not forget that we speak anthropopathically we may properly assert that, since human experience is our only basis for, and human valuation our highest guide to, the interpretation of reality, the highest and most abiding human emotions must reveal an essential aspect of the cosmos. Whether the ultimate reality be one spirit or a society of many spirits, this reality must be a life of feeling, and human emotion must be a principal avenue to experiencing ultimate reality. The ultimate self or society of selves must, then, feel the joys and sufferings of finite selves; must enjoy the beauties and sublimities of its universe and of the finite elements thereof; must feel, in some way, the loves and friendships which bind finite selves into higher unities. A universe which felt no pain and sorrow, thrilled with no joy or beauty, and which was insensate to the fellowship of selves would be less than human. Its experience would be much poorer and less meaningful than that of a human soul. It is inconceivable that such a universe should bring forth as its finest flower, beauty, friendship, love, devotion and admiration in finite selves, while in its own innermost structure and movement these supreme experiences should have neither place nor meaning.

CHAPTER XXXIII

MORAL FREEDOM

It is common in discussions concerning freedom of action to assume that there is a special faculty in man called the "will," and that it is this faculty that is either free or bound. Thus people speak of training the will, exercising the will, using their wills, etc. There may be no harm in all this, as a mode of popular speech, but in psychology and philosophy it is erroneous and misleading. There is no special faculty of will; the will is the entire self of the moment, the whole dynamic complex of impulsions, sentiments, valuations and thoughts, in action either to achieve a desired end or to ward off an undesired affect. In brief, the will is the whole self striving to attain goods and to avoid evils.

The concept of moral freedom must be distinguished from that of social liberty.[1] A man may be morally free and socially in chains, or vice versa. Furthermore, moral freedom is distinct from *psycho-physical* freedom, which is simply the power to express one's aims through the instrumentality of the body. One might be morally free and physically bound, through physical weakness, or through being pinned down, for example, by a weight that one could not remove.

The problem of moral freedom involves two distinct questions: (1) *self-determination* or the ability of the self as a unique being to *will* the ends which it values; (2) *freedom of choice* or the power of the self to choose between alternative courses of action. The second question may be put thus—granting self-determination, does it follow that a self could ever have chosen differently from what it did?

Practical moral judgments, as expressed in social responsibility, and in praise and blame, reward and punishment of self

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[1] Of course no one could "realize" and enjoy moral freedom as a slave.

and other selves, assume at the moment of decision the power of choosing, at least sometimes, between alternative ends of action. Unless "the native hue of resolution has been sicklied o'er by the pale cast of thought" to the point of volitional paralysis, or unless there has been mental and nervous breakdown, men believe that they can, in momentous crises, choose freely how they shall act. Whether Kant's famous argument for freedom, "I ought, therefore I can," be valid or not, it is certainly a true and pithy expression of the attitude of a healthy moral consciousness. What this naïve consciousness of freedom really involves is now the question.

The psychological determinist argues that what I may choose to do at any instant in my career is the strictly determined and unavoidable resultant of my character and circumstances, taken in conjunction. I feel that I am free in the degree in which I am able to express my selfhood or character in my deed. I am truly a self-determining and self-directing being, in the measure in which my actual individuality wins expression. But at the given moment of choice I could not have chosen otherwise than I actually did. I think that I can choose between two or more alternatives now before my mind because, up to the instant of actual choice, I am ignorant of many of the subconscious factors, in the shape of impulse and habit, that determine the actual course of my decisions. The psychological determinist holds that our voluntary actions are not mechanically determined by external physical causes. But he also holds that every actual volition is a wholly determined psychical process. I may choose, now, without external physical or social compulsion; but "I," who thus choose, do so as the joint resultant of many, and chiefly unnoted, inherited and acquired dispositions to act. It is indeed I who choose, but my choice is always strictly determined by my congenital nature, modified by the educational and environmental habits and influences which make that nature what it concretely is now. And my original nature is a perfectly definite datum, plastic in a limited degree to the molding influences of the social or psychical environment past and present. As life goes on this plasticity decreases to the zero point. "You cannot teach an old dog new tricks." Hence, the belief, at or before the moment of choice, that I could ever choose at will between two alternatives, or the after-reflection that I might then have chosen the one which I did not embrace, is due to my ignorance of my nature as this

displays itself in the succession of my choices. An all-wise psychologist could predict all our reactions and so-called choices through all time, provided that he were likewise an all-wise physicist. Our several natures may be unique, in the sense that they are specific or individual complexes of psychical factors, but what these natures are they inevitably are, and what they will be they inevitably will be. The standpoint of psychology, as of any other special science, is and should be deterministic, but this standpoint is not necessarily final.

Clearly, then the problem of freedom is the problem of the ultimate nature of the self or person, and of its place in the scheme of things. We are here simply approaching the central problem of our whole treatise from a special angle—that of volitional and moral consciousness.

One conception of freedom may be at once eliminated; namely that freedom consists in the power of unmotivated willing, in a capricious and mysterious capacity for making choices that have no intelligible relation to past choices, habits, and individual character. This is the so-called *freedom* of *indifference, liberum arbitrium indifferentiæ.* According to this view in its extreme form the most humane man might suddenly turn round and commit the wanton cruelties of a Nero or Caligula, the man with greatest power of self-control or with a cold temperament might suddenly become an utter drunkard or debauchee, and this take place without any assignable reason. Such a conception of freedom is both unintelligible and immoral. If it were true to the facts, education would be worthless, since effective moral habits would be impossible of formation and the volitional life of man would be a chaos. Without some measure of continuity and predictability in human character society would be reduced to anarchy, and moral judgment, education and the administration of law would be without any firm foundations. This theory contradicts the plain facts of experience, and can find refuge only in ignorance of human nature.

Education, moral judgment, and the conduct of the general business of society, all presuppose a high degree of stability and continuity in human character. Indeed, our social judgments and practice, our contracts, credits, promises and plans, all assume that human conduct is to a large extent predictable, when we know the individual to be a sane and normal self. Whatever sort

of freedom there may be, it must in any case be compatible with continuity and stability in character, and with the actual fulfillment of expectations based on character.

Furthermore, freedom of choice can be operative only within the narrow limits set by one's definite individuality and determinate circumstances. And freedom of choice is limited by moral freedom. A good man who, by repeated choices of the right alternatives, has formed a strong and steady habit of right decision, is morally free. We would hardly say that such a one is a slave to virtue, and yet he is practically incapable of making certain choices. We should not regard a God who, because of the utter goodness of his nature, could not do otherwise than always will the right as less free and less perfect than a God who frequently willed the worse when he might have willed the better.

That any human volition ever takes place without adequate motives may be dismissed as a senseless assertion. The spectator, and even the agent himself, is frequently at a loss to determine with any degree of definiteness the grounds of volition, but a fuller self-knowledge will always disclose them. That volition is determined by the strongest motive is in one sense false and in another sense a platitude.

If by the "strongest motive" be meant a force which pushes the self from behind or without, it is a false notion when applied to volition. A desire or impulse is not a motive to voluntary action until it has been identified by the self with its own aims and interests. Only when the self approves the satisfaction of this desire has it become a motive. It is only by the reflective reaction of the central principle, which weighs values and affirms choices, that a vague restlessness or a well-defined impulse becomes a motive. When desires conflict, that one which becomes the determining motive is the desire which is identified with the self as *good*. Thus, rightly understood, determination by the strongest motive means self-determination, for we have no measure of the meaning and strength of motives except in terms of their valuation by the self. Motives are not like physical forces which may converge from various directions outside their common point of application there to constitute automatically a composite resultant. *In voluntary action the resultant, whether simple or composite, is constituted finally by the reaction of the entire self.* Even the subconscious and unconscious tendencies, which influ-

ence decision and action so much, have no close analogy to external determination by physical forces. The only analogy in the physical world to the volitions of a rational self would be that of an individuated center of force which maintained itself by self-adjustment and reaction in a variety of ways to its environment, and this analogy is a weak one. The physical principle of the conservation of energy is irrelevant in this field. A self is a synthetic principle of activity which has the power of forming new judgments of value.

The problem of freedom comes, then, to this—is the self in all cases an absolutely fixed and temporally predetermined entity or not? Is human individuality the arithmetical sum or chemical fusion of various psychical and physiological forces, or is it a unique unity capable of self-determining progress and alteration? *All the freedom that the moralist needs is that of the self as a principle of self-determination and self-development,* and not a mere moving point of trains of forces converging from behind and from without. In short, is there an ultimate spiritual principle of synthetic judgment in the empirical ego? If we answer this question in the affirmative, then freedom of choice means the power, in definite critical and novel situations, to so evaluate and determine the sensuous and physiological factors of action that one thereby makes these factors the instrumentalities for the expression and fulfillment of the higher values of social and personal life. If there be an irreducible principle of spiritual individuality in the self, then we are free whenever, and in the measure in which, this individuality wins expression. This means a limit to the analysis and explanation of voluntary action—the limit set by the inherent nature of spiritual individuality or personality. We may, after the event, say that a heroic moral decision was the unavoidable and determinate expression of the individual's nature, because, in our *ex post facto* wisdom, we infer the nature of individuality from the acts which are its expressions and, indeed, its effectuations. But we cannot, before the event, always determine with certainty the limits of voluntary action, of moral choice, of heroic decision, of reformation, conversion, or failure. Doubtless there must always be specific conditions which arouse or liberate hitherto obstructed spiritual energy in the self; the reality of freedom means simply the power to put more of one's selfhood into one's choices and deeds; to value and determine one's motives in

the light of reason, beauty, justice, and love, as these ideals function in and through the self-determining personality.

Man is morally free, if his future is not wholly and exactly predetermined by the past expressions of his character, habits, and environment. Every critical moral choice must be, in such case, a new event in the spiritual world. Character cannot be a fixed quantity. It is rather the changing and developing expression or actualization, in single deeds and in habitudes of action, of the creative principle of individuality or personality. The latter is the source and bearer of the actual self's development. A self is morally free, if it be sufficiently fluid to be able to break away, when stimulated by favorable influences, from old habitudes and to form new and better ones by fresh decisions. There must, of course, be sufficient reasons for every action. The same self may act wrongly in one situation and, afterwards, rightly in a similar situation; because new influences have incited him to a revaluation of his standard of action, have altered his sense of relative values, and a fresh combination of motives leads to a novel self-affirmation. We cannot act contrary to our natures, but, in moral development our natures are not rigidly fixed and predetermined quantities, changeable only from without. The power of self-initiated and self-directed change, of individual and unique reaction, is the very root of freedom. It may be, of course, that we cannot predict every human valuation, choice, and volition, simply because of the vast complexity of the internal and external components of conation and the contrasting limitations of our knowledge. On the other hand, if freedom means anything positive, we could never, even with the most complete knowledge possible to a spectator, predict every choice of another self; for the self contains a uniquely ultimate principle of choice or self-determination, which is known to another, and even to itself clearly and fully, only as it reveals itself in new and critical situations. In short, to admit freedom in the sense of self-determination is to accept the ultimate reality of a creative principle of individuality as a not further explicable fact or constituent element in the universe.

On the other hand, it may be admitted that, when a volition is viewed retrospectively, the antecedent conditions being given together with the individual character, the individual could not then have willed otherwise. For, in explaining past choices and actions, we are not now viewing the volitions in their immediate reality,

and we could not so view them without ourselves being identical with the agent at the moment of choice. When we are in the midst of choosing, our volitions cannot be said to be wholly predetermined, since they are still in process, not accomplished facts. Volitions are not determinate until they have been determined. The explanation of a choice, a valuation, a voluntary deed, is always a retrospective procedure which fails to do justice to the act in its immediate and living actuality as a novel or creative event in the spiritual order.

Thus, two stages of freedom may be distinguished—*abstract* or *primary freedom* and *concrete* or *realized freedom*. By abstract freedom I mean the possibility of reflective valuation and choice, and of the development thereby of a well-organized individual character. This takes place through the functioning of the principle of rational individuality within the limits set by the congenital equipment of instincts, impulses, and other native capacities, and within the limits of a specific physical and social environment. Concrete freedom is the attainment of a more stable, organized and harmonious individuality through the exercise of freedom in the primary sense of freedom of choice or self-determination. To be free in the latter sense is to be a unique center of spiritual individuality. To become free in the full sense is to achieve the organization of the congenital tendencies or impulses, instincts, and desires by the spiritual principle. Full freedom is complete self-determination through the service of the intrinsic values of truth, justice, beauty, and love, in the individualized and concrete forms in which these values alone can be actual with reference to the unique nature and specific situation of each self.

Self-determination is a matter of degree. It is proportionate to the harmonious organization of the self. The more personality the more freedom. The self which is most capricious and uncertain in its choices and conations is most unfree, has the least degree of personality. For personality is the harmonious integration of a self's impulsions to feel and to think and, by consequence, to act. Since this integration rarely attains completeness, there are many degrees of freedom. The capacity for further integration is all the freedom from the chains of the past that is possible or desirable for a moral agent.

The facts of moral or spiritual new birth through some great

crisis, as well as of moral disintegration, cannot be gainsaid. In no case does the seeming suddenness of the critical change imply that the change has not been the resultant of psychical causes, slowly incubating in the self. A man may come to himself suddenly, and think it was a miraculous event, an act of divine grace. I do not question his right, in view of the tremendous significance of the change, to call it such. But changes of this character must always be the results of the gathering into one focus, and the spiritual synthesis, of forces that have long been maturing. The gates of the future are not locked and barred eternally. There are new *creative syntheses* in the volitional life, as in other phases of reality. But spiritual regeneration, as well as degeneration, has always its causal conditions.

The wars in our members, the inharmonious partial selves that inhabit our bodies, are conflicting phases of a mind or soul that is not at unity with itself and therefore not at unity with the universe. The slave of habit is one in whom have been formed habitual dispositions of desiring and striving that are in conflict with the gleams of a richer and more harmonious personality which he now and then entertains. One may be even a slave of good habits, by becoming a creature of routine and convention, to the extent that he loses the capacity for spiritual growth. True freedom is rational self-realization and self-direction, since reason is the generalizing, organizing, evaluating, end-determining and means-finding instrument, by which the native impulsions and desires are organized into the master sentiments, which are, in their indiscerptible interpenetration, *the personality* as a feeling and willing being. The popular notion that there is an incompatibility between reason and sentiment, as guides to conduct, is erroneous. Pure reason, if there be such a thing, never moved or restrained anybody. Crude instinct and emotion unregulated never developed into a coherent self. It is through the refinement or sublimation, and the organization, of the connate feeling-life in the light of reflection that stability, harmony and ordered growth become qualities of the self; and thus the self becomes a person.

Kant defined free action as action done wholly in obedience to the law of practical reason, out of reverence for the moral law. Kant was right in contending that free action is rational action which takes account of the specific impulses and situation of the self in the light of a moral universe or system of persons (his

kingdom of ends). He was wrong in failing to recognize fully that the dynamic materials of all action, and as well the specific sources of all judgments of value, are the connate impulses and interests of the self, as these are modified by the social soil and atmosphere. The moral person is always a concrete organization of human interests, and this organization is always effected in a social medium.

Bergson, in his fascinating book, *Time and Free Will,* argues, somewhat as I have argued, that personal life is a creative process in which the deeds of the past are not, in the present moment, the sole condition of the future. Man, says Bergson, lives upon shallower planes of routine most of his time; but, occasionally, and in critical moments, his deeper self wells up and overflows and alters the direction of the routine plane of life; then is man most free; then are his acts least predictable, since each free act is a creative moment in the history of a personality. Thus the living moment of willing, in which the self puts into its choice the greatest fullness of its psychical being, is a new increment in the growth of personality. I grant that man is most free when his deeper and more enduring sentiments or permanent dispositions to feel and think are most fully expressed, and that in such moments the self ascends to new heights of personality, wins to higher grades of self-realization. I grant too, that no one, perhaps not even an omniscient being, could fully foresee the outcome of such creative moments. An omniscient being must know all there is to know, but he cannot know as fact what is not yet fact. If the development of personality, and indeed the development of subpersonal life, be not wholly illusory, then we live in a growing universe. But I do not think that pure indeterminism follows. The capacities of selfhood that are being, and that are to be, realized by the freest volitions are, nevertheless, *specific dynamic qualities;* not indeterminate possibilities but determinate possibilities of creative resultants. The freest act is just the act in which the deepest nature, or *dunamis,* of selfhood comes to fruition. If it be, in serving one's friends, one's country or one's fellows, in devotion to truth and justice, in the discovery or creation of beauty and knowledge, in the life of love and loyalty, that man is most free, as I believe, it is just because in such attitudes and acts man's deepest and most abiding nature wins expression. *There is no indeterminism, no uncaused conation;* but there are various planes

of action, superficial and deeper, conventional and personal, animal and spiritual. Each type of being is most free when it acts most in accordance with its true nature; man, therefore, when he acts most in accordance with his nature as affectional, social, rational and creatively imaginative. In brief, man is most unfree when he is content to live by bread alone, if indeed he be ever thus content; most free when he lives most fully as a spirit or person *in* and *for* and *through the cosmos of persons.*

Every act of genuine freedom means a novel and unique event in the history of the universe. If there be freedom, then ultimate reality must include change. In the exercise and achievement of freedom man affirms the absolute or ultimate in himself. He transcends the world of passive fact and becomes a creative center of spiritual life. In so far, then, as man is free, the supreme spirit or ultimate ground of reality seems to be limited or finite. But this limitation need not constitute an external limitation on the will of the supreme spirit. The true end of action for every human self is harmony with the ultimate society of selves. This harmony is attained only through devotion to those ideal values which reflect, and are rooted in the nature of, the supreme unity. The ultimate spiritual unity must thus make possible the harmony of finite selves; hence the freedom of the latter may have its ground in an apparent self-limitation of the supreme self, which is really the self-expression of the latter's concrete individuality. The absoluteness which would be saved to a supreme self by the denial of human self-initiative would be the state of an oriental despot without character, friends, or companions. One could not define such a being as spirit at all. An ultimate spirit or person can be such only in relation to a community or society of selves, in whose lives and destinies and deeds his own life and purpose are fulfilled.

CHAPTER XXXIV

IMMORTALITY

The possibility of the continued existence of the self after bodily dissolution clearly depends on the nonidentity of the conscious or "spiritual" individual with the body. Apart from the supposed evidence afforded by communications from departed spirits, the grounds for a credible hope of immortality must be, in the very nature of the case, indirect. It is a question of empirical possibility, reinforced by rational probability.

The monistic or identity theory, which regards the mental and physical series as the two parallel manifestations of one substance, whose nature is not known to us, is incompatible with personal immortality. For, whether parallelism be taken in the more restricted sense of *psychoneural,* or the more general sense of complete *psychophysical,* parallelism; in either case it follows that, when the physiological complex which we call the human body is disintegrated and dissipated into its chemical constituents, the psychical self must likewise suffer disintegration into corresponding psychical elements. I have argued that the parallelistic hypothesis, with its consequent doctrine of a neutral substance as the underlying identity of mind and body, is not the final truth in this matter. The self, as an active synthetizing principle, is an immaterial, rational, or spiritual individual, which is so intimately associated with the body as to form with it a complex individual whole. The mental self is partially dependent on the body and perhaps partially independent of it.

From this standpoint individual immortality is *possible.* Furthermore, the whole world process has probably been making, and is now making, for the development and self-fulfillment of personalities. The ultimate meaning, so far as we human beings can determine, of the drift of natural and historical evolution seems to be the production and perfection of reflective and self-active

individuals. Hence, unless the process of reality, taken in its totality, to be a discontinuous and incoherent jumble, an inconsistent and self-contradictory world, the most rational postulate in regard to the future is that selves may persist and attain to higher levels of development under other conditions than the present affords. All the meanings and intrinsic values of experience, all the truly significant interests and worthful features of the world process, are concentered in the lives of selves. We cannot understand what truth or harmonious experience, what self-coherent reality, what justice and love, what beauty and perfection, could be or mean apart from the deeds and lives of selves.

If there be continuity, conservation, and enhancement of the intrinsic values of actual experience, then personalities must be, in some manner, permanent elements of reality. If the values of conscious existence, from the most exact and universal truth to the most concretely individualized love or interpersonal harmony, be mere will-o'-the-wisps, delusive phantoms mysteriously and episodically engendered by the ever shifting complications of the brute insensate elements of things, there is no ultimate meaning and no reasonableness in the cosmical process. The philosopher who proposes this alternative to the conservation of values would be, with his theories, the momentary and meaningless offshoot of an insensate and nonmoral world.

The perduration of the spiritual principle of personality is, then, a *rational postulate* for the interpretation of this temporal and developing world. But, when we attempt to determine more specifically what immortality may mean we encounter grave, and, perhaps, insurmountable difficulties. The ordinary man's belief in personal immortality involves, doubtless, the assumption of the continued conscious identity of the concrete selfhood in the future with that selfhood in the past; in other words, the persistent functioning of memories. The minimal meaning of personal immortality seems to be the continuance and further development of the individual life through the conservation and increasing fulfillment of moral and intellectual achievement and of affectional experiences of love and beauty. Unless a self be, in the future, continuous in its power to feel and to know, to serve and enjoy truth, goodness, beauty and love, in and with the community of other personal spirits—continuous in the exercise of the powers which it has used and enjoyed, however imperfectly, in its present existence

—that self will have ceased to be. If its powers have been warped and thwarted here, continued existence would imply the liberation in the future of the imprisoned powers.

Now, clearly, our memories are the empirical basis of our feelings of personal continuity, although memory in turn, as I have previously shown, depends on the functioning of the synthetic principle of selfhood. And memories depend, to a very great extent at least, on sensory experiences. Even our memories of the most intimate and sacred feelings of love, friendship, spiritual achievement, joy and peace, depend in part on sensory experiences. We cannot recall the persons of our dearest friends without some recourse to sensory images. Sensory experiences are all somehow registered in the central nervous system as functional modifications. When the body, and therewith the nervous system, have finally disintegrated, does not this whole function of memory, the empirical basis of personality, disappear?

Perhaps! But, on the other hand, there is no proof that the distilled essence of our physiologically conditioned experiences and deeds here and now may not be taken up into, and form perduring functional constituents in, the nonphysical self. No sensory process, through whatever bodily organ it may come, is a constituent in the life of the actual personality, until it has been assimilated by synthetic activity into the organization of the conscious selfhood. Our perceptual imagery, dependent on eye, ear, or skin, and on the functioning of the cortical areas, first gets its meanings and values through the active mental processes of assimilation, selection, and interpretation. The precondition of all relevant and useful remembering is the original apprehension of *meanings.* In contrast with the mere routine repetition of blind associative memory, based on mere contiguity, *relevant* or *logical memory,* which reproduces past experiences that have significant relations to present ideas, emotions, and purposes, is based on the original apprehension of significant relationships in the parts of experience to one another and to the self.

Cases of sensory aphasia, for example, so-called *psychical blindness* and *deafness,* wherein the eye and ear with their appropriate nerves are intact and the cortical areas of vision and hearing probably defective, exist without loss of reason or of the sense of personal identity. Such cases lend support to the hypothesis that the synthetic meaning-finding principle in the self is independent

at least of the functioning of some cortical areas.[1] Such pathological cases do not establish the complete independence of the brain on the part of the synthetic principle. They do support the validity of the distinction between the principle of significant personal memory and self-identity, and the neurally conditioned functions of perceptual imagery. The synthetic principle seems able to function when the sense organs and the cortical areas connected with them are impaired; in other words when the neural connections between the sense-organs are broken or deranged. On the other hand, the sense of personal identity seems to suffer aberration through neural derangements. It may be that these abnormalities of multiple personality and insanity are the results of derangements in the coördinating mechanisms which connect the sensory and motor arrangements for the *expression* of personality. The synthetic principle then would be the immaterial link or unifier of sensory experiences and motor activities. One of its chief functions would be to make and break connections by a selective emphasis of various materials of sense experience. From this standpoint the immaterial self is both furthered and hindered in its activities by the bodily mechanism; which is its instrument of expression in the present world; but a faulty instrument which, when seriously deranged, impedes or altogether prevents the expression of the mental self. No facts in the physiological and pathological orders negative the possibility that the mental self, which is able, by its selective synthetizing power, to organize and interpret the sensory materials of experience, may also be able, independently of its present body, to conserve the quintessence of meanings, values, and powers, which it has distilled from its material environment in the alembic of its own unique self-activity.

The possibility of personal immortality is open as an object of rational faith. If no proffered proof therefor is adequate, no positive disproof is forthcoming.

I cannot regard the so-called communications from departed persons to the living as having convincing value. The evidence for these things seems to me thus far insufficient. If sufficient, it

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[1] Compare the very ingenious use made by Bergson of such cases in his *Matter and Memory*, Chap. 2. Also Henry Head, "Aphasia and Kindred Disorders of Speech," *Brain*, Vol. 43, pt. 2, pp. 87–165. Also Dr. Head on "Disorders of Symbolic Thinking and Expression," *British Journal of Psychology, General Section*, Vol. xi, pt. 2 (1921), pp. 179–193.

would not prove immortality but only continued existence, concerning the value of which I should be, in view of the character of the communications, very doubtful.

On the other hand, I cannot share the attitude of those scientists and philosophers who would ignore or pooh-pooh the investigation of the so-called spiritistic phenomena. I grant that discouragingly little has thus far been established by such investigations. I grant too, that the messages which have come through from discarnate spirits, if indeed any veridical tidings have come through, are, for the most part, of so trivial and commonplace a character as to shed but little, and that little not a very cheerful, light on the conditions of existence of discarnate spirits. Nevertheless, if only a few cases of communications were established, for which no other reasonable explanation could be found than that they came from discarnate spirits, the hope of immortality would thereby have received a support more powerful than all the speculations and reasonings of philosophers. For, the greatest obstacle to faith in personal immortality is the apparent fact that the functioning of the individual mind (and we must not forget that every real mind is an individual mind), is dependent on the functioning of a nervous system. Strong evidence that a mental self, which had once been associated with a nervous system, continues to exist *without that nervous system* would be strong presumptive evidence of personal immortality. The objection that evidence of the continued existence of persons whom one knew in their earthly lifetimes would not prove the eternal existence of any self seems to me a quibble. For, if a self can survive the disintegration of an earthly nervous system, that is strong presumptive grounds for concluding that that self will endure so long as it is worthy to endure. And who will undertake to say what constitutes worthiness to endure? While, then, I am not yet convinced that the continued existence of discarnate persons has been established by psychical research, I regard this field as an important area of investigation. I have not personally engaged upon it, because my occupation and, in part, my tastes, have not led me to do so. But it seems to me that scientists and philosophers who neither engage in it themselves nor admit that it is a legitimate field for investigation are guilty of an unwarrantable dogmatism and are the creatures of intellectual prejudices. On the other hand the pursuit of such inquiries requires such a very unusual combination

of critical dispassionateness, mental alertness, power of weighing evidence, expert knowledge of physics, physiology and psychology, that I think it is a field into which but few should venture.

I return to general philosophical considerations. The creative synthetic principle of selfhood must persist. The concrete personality, that is organized around and by this principle, may persist. But how? When the avenues of sense and motor expression are forever closed and the brain has ceased to function, how and with what heritage from its physiologically conditioned life on earth does the spiritual individual take its flight? No one who has gazed on the dead body of a loved one can doubt that the mysterious principle which conferred meaning, worth, and beauty on that tenement of clay has vanished. It is unreasonable that it shall have vanished into utter nothingness. What then has it taken with it, from the epoch of its career which is now closed? Clear traces of its earthly experiences and deeds, absorbed into or fused with the conscious unity of the self so as to preserve the sense of moral and spiritual continuity with that past life? Or a more highly integrated and more harmoniously organized individuality bearing, *without continuity of personal memory,* the fruitage of its earthly activities? I have no new light to shed on this momentous question. I hold, however, that one is justified in believing in the continuity of personal spirit, as a real *possibility.*

A self may inhabit, after death, a finer, more ethereal body. I may add, merely as a personal statement, that I am unable to form any image or clear concept of the nature and conditions of existence of a purely disembodied spirit.

The persistence and continued functioning of the spiritual core of selfhood is a matter of rationally justifiable faith. The degree and character of continued personal identity must remain, from the standpoint of philosophy, a matter of conjecture.

Faith in the conservation and enhancement of spiritual values is a rational faith. Indeed, it is the basis of faith in the reasonableness and goodness of the cosmical order itself. If the spiritual values of human existence at its highest term of development and achievement do not endure, amidst all the changes and chances of this mortal universe, there seems to be no stable or coherent meaning in existence. Then the universe is irrational—indeed it is no universe at all.

Faith in the continuance and enhancement of the intrinsic

values—faith in truth, in beauty, in friendship, in love and harmony of life—in short, *faith in reason* and the *worth of spiritual life*—such faith is only another name for faith in the persistence of spiritual individuality. For, I repeat, these values are real only as functions of personal experience and deed. To have faith in the permanence of intrinsic values is to assume the enduring reality of selves who know truth, feel beauty, who love and win spiritual harmony.

On the other hand, this is eternal life here and now—to know and to live for and in the higher values of the spirit. It is to empty life of all meaning to suppose that the only value which the present existence can have is that of a mere preparation for some future and different state of existence. True immortality does not consist in a mere continued existence in time, in which the attainment of genuinely satisfying and lasting values is postponed to some other and future stage of life. If we take the terms "God" and "Christ" in a sufficiently inclusive humanistic sense to embrace the supremacy of all spiritual (that is, of intellectual, æsthetic, moral and other interpersonal) values, we may say—"This is eternal life, to know God and Jesus Christ whom he hath sent." If this seem to any reader to be unduly stretching the meaning of historic terms, he can substitute other terms more to his liking. I think my meaning is plain.

BOOK V

THE ORDER OF THE UNIVERSE—COSMOLOGY

CHAPTER XXXV

UNIVERSAL ORDER

We have now considered the nature and implications of knowledge in general, the general structure of the universe, and the nature and implications of personality and values. It remains to gather up our conclusions into a comprehensive conception of the structure and implications of our world of experience taken as a whole.

We have seen that the order of the universe must include a succession of levels of subordinate orders. Reality exhibits a hierarchy of grades of organization or integration. I shall now briefly resume the principal steps in the universal order. These are—(I) the spatial and temporal order; (II) the noetic order; and (III) the axiological order or order of values.

I. The Spatial and Temporal Order

Thought of crosswise as existing in a temporal instant nature is conceived as one continuous whole. (Bear in mind that timeless instants do not exist; the notion is a limiting conception or abstraction.) Nature consists of macroscopic spatial configurations. But, whether we look at nature macroscopically or microscopically, its configurations are relative to one another. To use Hegelian language: "Each one is an other of others." However one may elect to think of the ultimate elements of nature, whether as atoms, electrons or other punctiform centers of energy, any single element must be conceived of as the center of an indefinitely vast network of relationships. The character of a spatial element is defined by its position and its position determines and is determined by its relations. It is the ultimate aim of physical science to describe the qualitied events, which are any empirical chunk of nature, in terms of the positional alterations of elements. Physical science presupposes that at any instant nature is a continuous spatial whole

of simultaneous events. Simultaneous microscopic events are just momentary positions in space. The electrons which make up an atom of hydrogen or helium are a system of momental positions. Space means essentially the order of relationships between simultaneously existing positions. A spatial system, macroscopic or microscopic, is an order of elements existing simultaneously. But there are no timeless instants. It is just as true of an atom or electron as it is of a human being that it continueth not in one stay. A spatial configuration is a moving configuration, and since the natures of its elemental particles depend on their positions and these are changing, geometrical descriptions of nature in terms of pure spatial relations are fictitious accounts of fictitious characters. An atom or electron is like Zeno's arrow in that it is always moving in the place where it is not. Nature is extended. It has spatial quality but does not occupy space, for space exists only in the form of abstraction from the dynamic content of reality. Bergson is right in holding that reality is duration and that to conceive it as a purely spatial mechanism is to arrest its actual flow and distort the moving, changing, growing life of nature into unreal abstractions. As Doctor Whitehead finely says—"The passage of nature, which is only another name for the creative force of existence, has no narrow ledge of definite instantaneous present within which to operate. Its operative presence, which is now urging nature forward must be sought for through the whole, in the remotest past as well as in the narrowest breadth of any present duration. Perhaps also in the unrealized future. Perhaps also in the future which might be as well as in the actual future which will be. It is impossible to meditate on time and the mystery of the creative passage of nature without an overwhelming emotion at the limitations of human intelligence." [1]

Indeed the notion of a point or position in space implies a relation between this point and at least one other point, and spatial sense or direction which implies time. And all attempts to conceive a totality of space involve time, since the synthesis by which one thinks together finite spaces, say the interstellar spaces, as parts of one whole, implies time. A space world is a continuous whole and the notion of continuity involves time. The notion

[1] *The Concept of Nature*, p. 73.

of boundless space implies that of endless time. Thus the notion of a boundless space is a pictorial symbol for the mind's consciousness of its own capacity to repeat indefinitely a well-defined act of thought. A boundless space means that one can think on indefinitely imagining one space configuration to be contained in a larger configuration. A space-whole actually infinite could be conceived to exist only in an endless duration; therefore an actually infinite space could never exist at any moment of time. The ordinary notion of infinite space is that of a vague penumbra which is thought of as the fringe of our definite perceptions and conceptions of spatial order.

Duration or time, the dynamic aspect of nature, is thus more fundamental to the structure of reality than space, the static aspect. As S. Alexander puts it, time is the soul of space and space is the body of time. Since our conception of reality is dynamical, for us the soul of anything is its reality of which its body is the expression. Any bit of space is the trail of action and suffering on the part of dynamic monads. Space persists because centers of action and suffering persist, and therefore the relations between them continue or are repeated. A permanent spatial configuration is consentaneous with the persistence of a set of dynamical relations. An actual space, perceived or imagined, is a perspective or point of view, taken by a percipient, of actual and possible dynamical transactions between itself and other contemporaneously existing reals. Positions or situations involve temporal simultaneity. A distinction between two positions implies the *duration* of the movement of a point from one position to the other. We become habituated to thinking of the actual or imagined space complex which we can envisage as not involving time. I do not, for instance, think of time as being involved in the space-whole that I take in as I look out of my study window. But, if I am asked how far it is to yonder tree, I can answer the question only by estimating the number of successive movements of a yard-stick or of pacing out the distance. Moreover, the very notion of distance and of direction in space implies the duration of the objects, thus spatially related, through finite times. In short, any set of entities spatially related is a set of entities *persisting,* that is, having a duration in time.

It is misleading to speak of time as a fourth dimension of space. Time is not a dimension. It is becoming. It is change, the

passage of events. As Doctor Whitehead puts it: "There can be no time apart from space; and no space apart from time; and no space and time apart from the passage of the events of nature. The isolation of an entity in thought, when we think of it as a bare 'it,' has no counterpart in any corresponding isolation in nature. Such isolation is merely part of the procedure of intellectual knowledge." [2] Thus the idea that nature is merely an aggregate of independent entities each capable of isolation is false.[3] A timeless space is an intellectual abstraction just as a "point" or "instant" is. Space and time spring from a common root. The ultimate fact of experience is a space-time fact.[4] We are aware of nature enduring . . . Thus awareness of nature begins in awareness of a whole which is present because this present whole of nature is "duration." A duration is a "temporal slab of nature." Nature at a moment exhibits, among other things, the relation of a three-dimensional space; this is instantaneous space. The instantaneous points of such a space are routes of approximation constructed on the same general principle as moments; namely, a point series is an infinite series of events, every event extended over all the events subsequent to it in the series; the whole series converges towards an ideal of an event of nonextension. An instantaneous point is better named an "event particle." Event particles form a four-dimensional manifold which is divided into three-dimensional instantaneous spaces which lie within the several moments. We should speak more accurately in the plural, namely of "times and spaces" and not of time and space.[5] Durations, or events, which constitute the passage of nature, says Doctor Whitehead, extend over one another. For example—"a volume may be defined as the locus of the event particles in which a moment intersects an event, provided that the two do intersect." [6] "An event will be said to occupy the aggregate of event particles which lie within it." [7] "But there are alternative time systems, and each

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[2] *Op. cit.*, p. 142.
[3] *Op. cit.*, p. 141.
[4] *Op. cit.*, p. 132.
[5] See A. N. Whitehead in *Symposium*, "Time, Space, and Material," *Problems of Science and Philosophy*, Publications of Aristotelean Society, 1919, pp. 44–57; and Mr. Whitehead's *An Inquiry into the Principles of Natural Knowledge*, and *The Concept of Nature*, *passim*.
[6] *The Concept of Nature*, p. 101.
[7] *Ibid.*, p. 101.

time system has its own peculiar system of grouped points." [8] A point is an absolute position in the timeless space of a given time system. An object, as Doctor Whitehead conceives it, is a factor in nature which is without passage. We are not directly aware of objects but we are aware of sameness or repetition of quality in events. No two events are exactly alike but they may have similarities. "An object is an ingredient in the character of some event. In fact the character of an event is nothing but the objects which are ingredient in it and the ways in which those objects make their ingression into the event. Thus the theory of objects is the theory of the comparison of events. Events are only comparable because they body forth only permanences . . . Objects are the elements in nature which can be again." [9] But since events are percipient events or moments of awareness, as Doctor Whitehead calls them, and since no two of these can be alike and they are all transitory durations in nature as the object of sense awareness, there can be no permanence. Objects or permanences are constructed through the recognition of sameness or repetition in the quality of events. In the case of perceptual objects, such as a coat with shape, texture and color, Doctor Whitehead says that the percipient event is the situation of a variety of sense objects due in this case to the interplay of sense objects of touch and sense objects of sight. But a sense object brown or woolly is nothing by itself. It is an abstraction from the perceptual object and the relative permanences and interdependences, the orderly persistences, comings and goings of perceptual objects imply that nature is something more than passage. *It is orderly passage.* Thus percipient events, as awareness, and their objects involve a permanent or substantial order, an ultimate space-time order of which our awareness of passing events and of the particular objects through the passage of events are finite perspectives.

Doctor Whitehead states that the continuity of nature in its passage is due to the fact that durations overlap or extend over one another and that there are no timeless instants. It follows that there are in reality no absolute maximal or minimal durations. The overlapping of finite durations, which is the empirical basis for the belief in the continuity of nature, implies the permanence

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[8] *Ibid.*, p. 106.
[9] *Ibid.*, pp. 143, 144.

of an order to which all finite durations are subject. And since this *order* is the order of all durations it must be the timeless order of temporal events. In brief, *unless nature, in the sense of the space-time world, be a mere collective name for an absolutely discrete and chaotic succession of finite events or durations, it is the manifestation of a permanent or supertemporal order, an invariant principle.*

Indeed an invariant principle or supertemporal order is implied in all our human standards of time measurement. If we recognize, as we do, the relativity of our actual standards to some more nearly invariant standard, this very recognition is a route of approximation to an implied absolute invariant. We correct our sensuous estimates of time by the watch, the watch by the astronomical clock, the astronomical clock by large scale sidereal movements which are the closest approximation we can make to an invariant rhythm. And when the astronomer, for example, makes allowance for the slowing up of the velocity of the earth's rotation he is seeking the closest possible approximation to an invariant order—to a perfect cosmical rhythm.

Nature is the all-inclusive space-time world. There is no non-temporal space world or nonspatial temporal world. Space is the order of interaction among contemporaneously enduring monads. Space means the permanence or perduration of interacting centers. Space means that the perduring centers of relationship are a system. It implies the unity and continuity of a supertemporal ground of interaction—a world ground. There can be no interactions without a ground and there can be no permanence or order unless the ground of interaction be supertemporal. As Lotze argued: If two elements, A and B, are related in any way, then either the relation is both relevant to A and B and they are elements in one system or the relation R is wholly irrelevant to the being of both A and B and their mutual influence; then we have A, B, and R, as atomic entities, but no real A-R-B. The relation does not really relate. Either the terms, supposed to be related, fall wholly apart, or we must seek other relations R_1 and R_2 to relate R to A and B, respectively, and still further relations to connect A-R_1-R and R-R_2-B and so on, indefinitely; or we must assume a *common ground* or *medium* of the interaction of the simplest elements in the system of reality. We can never get A and B related in any fashion unless we presuppose the one ground

or medium. Thus, all the relations and entities related can so exist as parts of the one real being. This argument of Lotze's, the principle of which is involved in all singularisms from Parmenides to Spinoza and Bradley, if taken in this form, involves pantheism. Everything finite is a part of the one.

But may not, as James Ward puts it, the interaction between finite entities be in the nature of immediate rapport? May not reality be a pluralistically conceived collection of interactive and interpatient beings, each one acting directly on others? It may possibly, but in this case there would be no intelligible basis for the orderly or determinate modes of continuous interaction between the plural reals. Leibniz' monads act in harmony, because there is a principle or ground of order which so determines them to act. Whatever be the degree of order or systematic continuity in the transactions of finite entities, to that same degree there must be a cosmic principle of order. In so far as there may be contingency or chance in the course of things, to that same degree there is, of course, a limit to the principle of order.

Instead of saying that there must be one medium of interaction between the plural reals, which seems to me a misleading spatial metaphor that logically involves one in a geometrical and fatalistic pantheism, a "block universe" type of doctrine, I would hold that the interrelation of the monads or individua (the finite entities) has its final ground in a cosmic principle of order, which, in its own being, transcends these transactions between finite reals. The cosmic ground of order is thus, *not the medium* of interaction, but *the source of the properties or laws of behavior by virtue of which finite individua interact.* It is, I shall try to show more fully in the sequel, an over-self, a transcendent spiritual unity, or superpersonal community (the latter is my understanding of the doctrine of the Trinity). The notion of an over-self or superpersonal community of life is more than simply the most adequate ground for the personal and spiritual life of man. It is, logically and psychologically, the most adequate conceptual basis to account for the unity and continuity of the universe in its physical and vital aspects.

Not an all-inclusive or all-containing being, but one perduring originating and sustaining ground of order, is for me, the ultimate reality. In the remainder of this chapter I shall try to develop and illustrate this conception.

The conception of the ether of space among physicists illustrates the inescapable necessity of thought to conceive a ground of interaction. However the electrons may be conceived, the impossibility of thinking that forces act across absolutely empty space, which is nonbeing, or that the ultimate ground of our physical world can be an indefinite multitude of absolutely discrete centers of force, leads inevitably to the hypothesis that macroscopic matter has its common ground in the relations of microscopic specks or centers of activity or inertia which are in motion in the ether. The ether is a perfect fluid through which these microscopic specks stream without meeting any perceptible resistance. To say that ether is a perfect fluid is only another way of saying that there must be a continuous medium or ground of interaction among the discrete force centers. The extreme tenuity and elasticity of the ether are the physicist's way of expressing the need for a unitary conserving principle as the ground of the order of interaction among atoms and electrons. Thus, the ether is a symbolic concept, which means that the ultimate ground of all physical activities must be the conserving self-activity of the supreme cosmical force. As I understand it, in the Einstein theory of relativity the ether is dispensed with. But if the electron theory or any other theory of the granular structure of the physical world wins out, it will be necessary to postulate in some other form an ultimate ground of order and continuity.

Nature is a system of interactive and interpatient elements. Each of these elements is a space-time reality; it is spatial as being a member of the contemporaneous system of nature, and it is temporal as enduring; it is dynamical inasmuch as it acts and suffers. The whole continuous system implies a self-conserving active ground of order. The universe of nature has the crosswise or simultaneous order of a system of contemporaneously related elements and the lengthwise order of a continuous or enduring process. The lengthwise aspect of order is not, as we have seen in a previous chapter, that of complete qualitative identity in the successive events which constitute the history of nature. The order of nature is a creative advance. Nevertheless it is an order and therefore there must be a supertemporal ground of the history of nature. This ground must be an everenduring principle of creative self-activity.

Since all our notions of continuous self-activity are derived

from our immediate experiences thereof in our own impulsive and purposive efforts, and since the more organized continuity there is in a center of activity, the more does that center approach to the type of a personal self, are we not warranted in saying that the ultimate sustaining active ground of order, of organization and continuity, for the universe is best conceived after the analogy of a self?

II. The Ultimate Noetic Order

We have already argued at length, in chapters III to VIII, that all striving towards fuller truth is guided by the ideal of systematic wholeness, self-coherence, or organization. We do not possess a completely harmonious system of truth, and perhaps we never shall. Our human truths are not falsified by their partial or fragmentary character, by the fact that we do not know the whole truth in its harmonious completeness. That, in a general sense, we can know the whole in outline follows from the fact that there is an ideal or standard of self-coherence or harmony in a system, by which we measure our partial truths in their reference to one another. Thus we fill in progressively the details of that hormonious organization of insight which, as ideal and standard, is ever before us. On the other hand, the true principles of logic, mathematics, and all other fields, are not made true by the individual's thinking nor falsified by the individual's failure to think them. Truth, for us, is the growing interpretation, and expression in symbols, of the meanings of reality—of its structure and order. Our partial grasp of the order of reality must be an approximation, however imperfect, to the reality itself. Our interpretations of that order may need, from time to time, radical revision. We cannot foresee the changes that are yet to come in the creative but orderly process of the whole but these changes must themselves be the expression of the fundamental order. Only thus can we think of universe, totality, cosmic process. There must then be one objective and intelligible order which corresponds (though we may not, now or ever, fully know just how in detail this correspondence works out) to the standard of a self-coherent or harmonious totality. The organizing and conserving order of the universe throughout its history must be an active reason or intelligence. In tracing out the lineaments of the cosmical order on the fields of nature and human history we are learning, step by step, the character of the

supreme order, and we are realizing our rational individuality by coming into conscious harmony with that order.

Thus, we are led, from a consideration of the spatial and temporal continuity of the world and from a consideration of the nature of truth, to the notion of a cosmic will or dynamic intelligence as the ground of the world order. Whether this order-power works in the face of external obstructions is a question we shall consider later. Before we do so, we shall consider the place of values and of selves in relation to the supreme order.

III. The Cosmic Ground of Values

Truth is one form of value. But it is basic to all other forms of value. The validity of all values, which means, in the final analysis, their cosmic standing, depends on the validity of the truth-value. Pragmatic and instrumentalist conceptions of truth, which would reduce it to the position of a tool or instrument to further values extrinsic to itself—such as emotional satisfactions, so-called practical ends, and "social welfare"—reduce all values to mere ephemeral tracings on the shifting sands of the purely human. Subjectivism is not escaped by appeal to the social, or even universally human, character of desire and need. Unless truth have an objective and cosmic reference, humanity is hopelessly and forever shut up within its own skin; its deepest and noblest sentiments are naught but human illusions, vain imaginings, unless the human intellect can somehow lay hold, however feebly and gropingly, on the nature of things. Whatsoever cosmic status other values may have, they can have it only as being in harmony with the real objective order as apprehended by reason.

Goodness is the quality of *sentiments* (organized dispositions to feel and act) and of *volitions* (sentiments in action). Goodness appertains only to conscious and intelligent life. Beauty, whether of nature, art, or personal character, has no meaning and no existence apart from conscious and intelligent life. The cosmic status of goodness and beauty depends on the perduration, in the cosmic order, of conscious and rational life. Truth is the most comprehensive and fundamental and enduring harmony between conscious life, as capable of reflection upon the objective conditions of its own being, and the cosmic order. Therefore the objective and cosmic standing of all values depends on the per-

duration and prosperity of conscious and reflective life. By "prosperity" I mean, not merely the conservation of such life but, as well, its qualitative increase.

Thus, the order of conscious and intelligent life must be the key to the ruling purport of the cosmos, when we think of this in terms of values. Thus the supreme principle of order and continuity may be properly described as an overself, a superperson, or, perhaps better, a spiritual society or community of selfhood. It must be much more than a self or person, in the sense in which we immediately experience and reflectively know the entities for which these terms stand. Each one of us is an imperfect spiritual community living in interpersonal or social relations. We can make no hard and fast separation of our intrapersonal and our interpersonal lives. By analogy, I would describe the supreme ground of values as the perfection of selfhood, which is, by that very fact, the perfect community or society.

Our hypothesis is incapable of absolute proof, since such proof would require that we should know the general structure or character of the total cosmos. It is based on the only kind of argument which is relevant in this case. If reality be a cosmos, order, or system, it must have a continuity of structure and meaning. The realm of intelligible meanings and values cannot be absolutely sundered from the total character of the real. The latter cannot include, as a part of itself, as an ephemeral by-product of its blind and insensate ongoing, an order of meanings and values and of life in which these inhere, but to which the total cosmic order is utterly alien and hostile. For, if the cosmos as a whole be a brute insensate procession of merely physical forces, it is alien and hostile, simply because it is indifferent, to meanings and values. Such a supposition makes the eruption and the activity and continuance of life and its values, for however brief a moment in the eternities of the cosmic whirl of atoms, the most unaccountable and stupendous of miracles. It makes life the momentary by-product of a lifeless world, values and meanings the momentary fermentations of a meaningless and valueless cosmos. Since our universe is a part of the cosmos, the meanings and values of life in our universe must be somehow continuous with the whole meaning and structure of the cosmos. Of course we do not and cannot know just what transformations life and its values undergo in the total order; but it cannot be transforma-

tion to the point of extinction of selfhood and its values; it must be rather the continuance and increase of these.

The doctrine of absolute or singularistic idealism, that all finite selves are literally existential elements in the absolute self, mind, or experient, is based chiefly on the supposed analogy between mental systems (affective, ideational and volitional complexes) considered as elements in the total organized life of a human self or person, and the life of a human self considered as one constituent in the life of the absolute. Just as I am made up, psychically, of a considerable number of fairly well-organized and distinct dispositions which, in their interrelations, constitute my total personality, so the absolute is made up of all finite selves, human, subhuman and superhuman, organized into a unity. Just as I am a sort of society, so the absolute is a super-society.

On critical examination this analogy breaks down. In a normal self the various subsystems or ideational complexes, which constitute the dynamic content of the personality, have nothing closely corresponding to the distinctness, privacy and self-determination of the whole individual in relation to other individuals. The ideational complexes are distinguishable phases of the self, not distinct existents. I am an imperfectly organized self, compacted of a variety of impulsive, emotive and ideational factors. Nevertheless, whatever degree of personality I may be, that I am as one living whole—private, self-determining and relatively self-existent. No finite self is included in me nor I in any other, so far as I know. I have facets to my personality, but, unless my personality is in a state of disintegration, I am one self.

The diseases of personalities do not support the absolutist's contention. If there are really two or more selves in one body, then each of these is a distinct and self-determining personality. They do not literally share in one another's being. If they did they would cease to be two. Two friends or lovers, no matter how close their affinities, do not cease to be two. If they did the meaning and zest of the whole relationship would disappear. As a matter of fact a dissociated or diseased self is not an integrated personality at all.[10] In it the various complexes oscillate in control, or some aberrational complex wins the upper hand, just because of the weakness of the function of nervous and mental

[10] *Cf.* Chaps. 25 and 26.

integration. An absolute self constructed after this analogy would be a mere aggregate or warring collection of imperfect finite personalities—not one perfectly unified and all-inclusive self.

We have no sufficient grounds for supposing that one rational self can be literally included in another. A universal self, which includes and synthesizes into a perfect unity the lives of all imperfect and changing selves, could not be a self at all. Selves exist only in relation to other selves. An absolute which includes and transmutes all finite selves is not a self, and, in the process of transmutation, the finite selves must lose all that constitutes selfhood. Thus the singularistic idealist pays a heavy price for his one—the finite self dissolves into a phantom, and only by doing violence to the logic of experience can he find his absolute self.

If there be an over-self it must be distinct, in its existence, from all finite selves and they from it. It must be the creative or originating and sustaining ground of the order of the cosmos and of the lives and values of finite personalities, the conservator of the order of values. I can attach no definite meaning to the notion of an impersonal all-inclusive spirit, conceived as the sufficient ground of reality and values. Either there is no cosmos, and no cosmic principle of order or ground of values, or the principle and ground is an over-self, a spiritual community, of which the highest finite personality is our best available adumbration, however imperfect a foreshadowing it be. If there be no over-self then finite selves are not only the highest beings in the universe, but they are higher and worthier beings than the chaos which has engendered, and will engulf, these paradoxially tragic beings which are able to rebel against, to judge and condemn, the insensate welter of physicochemical transformations. *A single human self has more of value in it than an infinite chaos of atoms or electrons.* To talk about meanings and values inhering or enduring in a so-called universe in which personalities are accounted merely transitory elements is to talk nonsense. Conscious and rational life must be supreme in an intelligible cosmos.

Monistic Theism—the doctrine that all nature is subordinate to one spiritual being, from which finite selves are existentially distinct, but to which they are similar in kind and therefore related—is a logical doctrine. Dualistic Theism—the doctrine that there is a recalcitrant factor, a cosmical obstacle to the full realization of values—is likewise a logical doctrine (the problem of

evil will be discussed later). Pantheistic idealism and pantheistic naturalism are, for different reasons, illogical and inconsistent theories. Pantheistic idealism, in its attempt to conserve the meanings and values of selfhood by including all selves in the absolute self, sacrifices selfhood on the altar of an impersonal unity, and thereby cuts the roots from under all values.

Pantheistic naturalism invites us to value and worship a universe of physical and unconscious energies by the application to these of the misleading honorific adjective "infinite." But, since all meanings and values must go down to shipwreck and extinction, if personality be an epiphenomenon, the so-called universe of the naturalist is unworthy of valuation and reverence. In such case, if we still must worship, let us worship man. For, weak and erring though he be, man is worthier than an infinite and eternal blind whirl of energies, since he alone can feel and think and will and dream—alone can invent and serve truth, justice, love, and beauty.

APPENDIX

THE MEANINGS OF THE INFINITE

The word "infinite," like many other philosophical terms, covers a number of equivocations. The following are its chief meanings:

1. The indefinitely great, that which is greater than any assignable quantity, in magnitude, number, duration or intensity. When people speak of infinite space, force, time, or of one entity as being infinitely better than another, what they have in mind is inability to measure. What they really mean is "indefinitely" larger, greater, longer, better, etc.

2. The second meaning of the infinite is the unlimited, the unbounded; for example the absolute boundlessness of space, the absolute endlessness of time, the absolute inexhaustibleness of energy, the endless duration of life.

3. The infinite as the perfect or self-complete; as including all forms of values in the highest degree possible. In this, which is peculiarly the metaphysical, meaning of the infinite there can be of course only one infinite, the absolute reality or ground of the universe in its unity and totality. The infinite in this sense of perfection and self-completeness would be wholly self-active and self-contained; in short perfect in power, knowledge or insight and feeling. There could be for it no opaque facts, no unattainable desires, no gaps between will and deed, no irresolvable disharmonies.

The infinite as the indefinitely great is nothing actual. It is simply a misleading expression for vagueness in human thinking and incapacity to measure or estimate. No matter how vast the actual magnitude of the space world, of the number of elements in it, or of the differences of degree in quality, all these things must be *finite* in the sense of being *definite* in quantity, number, and relation. Nothing that exists *in* time strictly speaking can be endless. Anything that may exist endlessly, exists eternally, is a timeless existence.

Since space is not a kind of separate existence, but the system of relations between contemporaneous existents, space in itself cannot be actually boundless nor bounded. The whole of reality cannot exist *in space*. Nor can reality actually consist now of innumerable entities, for an innumerable number is not a real number. The real elements of the universe must, at any moment, be a definite and actual number. The proposition that there actually exists an infinite number of things is tantamount to saying that the world is in endless process of change, so that incessantly things come into being and cease to be. An unreal number or an endless series means that at any moment there is a finite number of things and a series that is never to be completed. Since space is the system of relations between simultaneously existing things, and since the latter must at any instant be an actual or finite number, space is finite. Since time is the form of change, the relation of succession and every change and succession is finite, the actual endlessness or infinitude of time is a misleading way of asserting the reality of eternal or changeless being. Whether belief in the reality of eternal being is consistent with the temporal character of our actual world is a question which I will discuss fully in Chapter XXXVII.

The "new infinite" of mathematical speculation is frequently put forward as affording a definite solution of the philosophical problem of the infinite. I shall discuss this new infinite very briefly, for the purpose of showing that it does not solve the problem of the actual infinite in the sense of the reality of self-completeness or perfection.[11]

The "new infinite" is a new definition of infinity derived from

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[11] From the large and growing literature on this subject I select for reference, B. Russell, *Our Knowledge of the External World*, Chaps. 6 and 7; and *Mysticism and Logic*, pp. 84 ff.; Russell and Whitehead, *Principles of Mathematics* (see index); L. Couturat, *L'Infini Mathématique;* B. Russell, *Introduction to Mathematical Phisosophy;* Josiah Royce, *The World and the Individual*, Vol. I, Supplementary Essay; H. Poincaré, *The Value of Science*, and *Science and Method;* William James, *Some Problems of Philosophy*, Chaps. 10 and 11; and my article on "The Infinite New and Old," *Philosophical Review*, Vol. xiii, pp. 497–513; J. S. Mackenzie, *Elements of Constructive Philosophy*, Bk. iii, Chap. 3.

the property of number series. All number series are indefinitely continuable series growing according to perfectly defined laws of order. Take, for example, the series of positive whole numbers, the series of even numbers, and the series of numbers which are squares of the whole numbers:

$$0, 1, 2, 3, 4 - - - - - - - - n$$
$$0, 2, 4, 6, 8 - - - - - - - - n$$
$$0, 1, 4, 9, 16 - - - - - - - - n$$

The other two series are contained in the first series but to every number in the first series is a corresponding number in the other series, since all the series are endless. The series are in one-one correspondence. Thus an infinite whole is one which corresponds to a proper part of itself. Any class is infinite if its parts are numerically similar to itself. Such groups of series are endlessly self-representative; each member of the group represents the whole group of series adequately. Thus, as Russell tells us, infinite numbers differ from finite numbers in two respects. First, an infinite number is not increased by adding one to it. Given an infinite collection, any finite collection may be added to or taken away from it without increasing or diminishing the number of the whole, as in the number series given above. Second, since all finite numbers are increased by the addition of one, the principle of mathematical induction holds good of finite numbers but not of infinite numbers.

The similarity or one-one correspondence between whole and part in the new infinite solves, it is said, Zeno's paradox of the Achilles and the other classical problems of the infinitesimal. The path traversed by the tortoise in a given time is a part of the path traversed by Achilles in the same time; thus there is a one-one correspondence between the infinite number of points in each stride of Achilles and each step of the tortoise; therefore Achilles can overtake the tortoise. But this explanation assumes, as James pointed out, that an infinite number of points has in both cases been traversed in finite time, whereas the real problem is as to how any being can pass through an infinite number of points in a finite time. The way out of this difficulty is to say that the finite stretch of time consists in an infinite number of instants corresponding to the infinite number of points in the different stretches traversed by Achilles and the tortoise. But all these instants are timeless. They cannot by addition constitute a finite stretch of time, any more than an infinite number of zeroes can constitute a positive finite quantity. As James says, whoso actually traverses a continuum can do so by no process continuous in the mathematical sense. Be it short or long, each step in the journey

must be occupied in its due order of succession. If the steps are necessarily infinite in number, their end can never be reached, for the remainder in this kind of process is just what one cannot neglect. By the method of one-one correspondence neither Achilles nor the tortoise would ever get in motion at all. The only solution is to say with M. Bergson that each step is an indivisible movement and every real time a finite duration. Mathematical time is a generic concept for all finite durations, mathematical distance a generic concept for all finite distances, mathematical motion a generic concept for all finite motions. There are no actual infinitesimals in space, motion, and time.

The various number series are not equal in numerical magnitude at any stage in the indefinitely continued operation of enumerating them. They are never actual infinites. They are endlessly growing finites; in other words they are perfectly well-defined formulæ for the indefinite continuance of recurrent operations of thought. Writers such as Dedekind and Royce conceive the positive nature of the infinite to be the capacity for endless self-representation, of which number series form striking examples. Imagine a map of a country situated in a certain part of the country; then to be perfect the map should contain a map of itself and so on endlessly. But this is a process of self-representation which can never be completed. Like the number series, it is a case of the indefinite recurrence of an operation which can never actually be completed. Dedekind draws from the mind's power of self-representation the proof that there actually exist such infinite systems.[12] But such an argument, to be valid, would have to assume that in one's self-consciousness one could represent wholly and completely the whole series of thoughts possible through endless time. An omniscient thinker, to be actually infinite in thought, would have to possess a sun-clear intuition of all possible objects of thought. Thus the human type of complete self-representation would be, in an endless series of self-representations, endless in the sense of never-completed; but not an act of intellectual intuition in which a being should grasp all at once in a single insight all the possible objects of his thoughts and their relationships. The human mind's power of self-representation is finite in two senses —(1) it never completely and translucently penetrates all the objects of its thought; (2) at any moment the objects of its actual thought are but a small selection from the possible objects of thought. A perfect self-representation would not be a representation at all, but an intuitive penetration and comprehension of the whole universe of

[12] See Dedekind: *Essays on Number.*

not-self in self. The actual infinite, if such there be, must be a being self-complete and perfect, self-existent, self-contained, self-moving. Such a being would be infinite in power in the sense that he would be unhindered and unlimited by any power independent of himself in its origin and existence; infinite in knowledge in the sense that there would be no data or facts through which his insight would not completely penetrate and which would not blend in the totality of his insight; infinite in goodness in the sense that there would be in his willing or self-activity no conflict of motives, no opposition between desire and volition.

There is a distinction between self-completeness and perfection. A finite being or even a work of art may be perfect after its kind, but only the infinite universe can be self-complete. If, however, we take perfection to mean the absence of defect or limitation, no finite being can attain perfection.

The metaphysical infinite may be conceived theistically, pantheistically or pluralistically. For theism God is the one self-complete being who includes all forms of perfection. He has an inner life which transcends the life of the world. The world is derived from and dependent upon Him; nothing in it can take place independently of His will, but He may by an act of self-limitation endow finite selves with a limited power to choose and hence to err. From this standpoint the imperfection in the world, its suffering and evil, are elements in the divine plan. These defects do not constitute limitations imposed upon God, but are factors in the order of the universe which, as the expression of God's perfection, must as a whole be good, however imperfect its parts.

The pantheistic infinite is the identification of the absolute or perfect being with the wholly immanent spirit of the universe. God, the one being *absolutely infinite* as Spinoza puts it, is identical with the whole indwelling principle of totality or unity by virtue of which the universe is a universe and not a mere heap or aggregate of unrelated parts. In other words the infinite is the principle of cosmic unity, the *deus sive natura,* of Spinoza. When the pantheist conceives a cosmic unity as being, not an impersonal principle of unity, but a personal or superpersonal principle, he has passed beyond pantheism. For a self-conscious center essentially transcends, in its inner life, all others, however intimate its relation to its others.

If the universe be conceived, as it is for example by Mr. J. M. E. McTaggart,[13] as an eternal system or society of finite beings, who are fundamental differentiations of the absolute, we have an infinite

[13] See his *Studies in Hegelian Cosmology* and *Some Problems of Religion.*

which consists of a permanent system of finite beings in relation—one infinite which is the impersonal unity of a plurality of persons.

Thus we have a synthesis of singularism and pluralism. This synthesis is the only logical form of pantheism. For either the infinite, as the principle of cosmic unity, is a self which transcends all the finite members of whose relations it is the ground, or it is an impersonal principle of unity. The logic of Spinoza's pantheism or of Hegel's, if indeed Hegel was a pantheist, requires some such conception as that of Dr. McTaggart.

CHAPTER XXXVI

FINITE SELVES AND THE OVER-SELF

In the previous chapter we rejected the notion that an impersonal ground of the world could be the ground of personality and value. We also rejected the notion that the cosmic ground could be a person which literally contains, as parts of, or elements in, its experience, all finite selves. We denied that a person could be a mere fragment of another person. But how can finite persons have any existence of their own, if they are dependent on the cosmic ground? And how can the cosmic ground be a unity if it be not impersonal? These are problems of exceeding great importance and difficulty which we must consider.

I have called the cosmic ground an *over-self*. This means that while it contains, in a more eminent sense, what we mean by personality, it must be *superpersonal;* it must transcend finite selfhood. Perhaps we shall find the best clue to reconcile the immanence of the over-self in nature and man with the transcendence that must belong to it, if it be not impersonal but superpersonal, if we suppose that the over-self is the union in higher degree of what we mean by "Personality" and "Community."

First, a few words on the immanence of spirit in nature.

I remind the reader here of the argument developed in previous chapters that the æsthetic emotion of kinship with nature (of which the feelings of beauty, picturesqueness, grandeur and sublimity, with which one contemplates the varied aspects of nature as living wholes of individual significance are phases) constitutes an important ground for belief in a spirit immanent in nature. Since man feels a harmony between himself and nature, when the latter is perceived as a living and significant whole, the scientific analysis of nature can do no more than lay bare, at best, the skeleton of the world. The flesh and blood of nature's living individuality is apprehended only through the concrete poetic intuition of the nature lover. In the æsthetic emotion man enters into immediate communion with the spiritual life expressed in

the natural order. There is no necessary inconsistency between the scientific conceptions of nature and the intuitions of the nature lover. Scientific analysis, properly understood, enhances man's æsthetic relations to nature, since it deepens and clarifies his immediate sense of nature's meanings. On the other hand, the æsthetic contemplation of nature clothes the abstract skeleton of scientific concepts with the rich qualitative variety, individuality, and living harmony of concrete intuition. Perceptual experience takes on its full meaning only when it is suffused by æsthetic feeling. The poets are not vain dreamers of subjective fancies, and there need be no quarrel between science and poetry. Scientific analysis of nature furnishes the intellectual framework of a more meaningful and profound poetic integration of nature in its spiritual character. The total and immediate intuition of the nature-lover sees the scientific framework filled with life and value. The æsthetic communion of man with nature is unintelligible on any other hypothesis than that nature, in its individual forms and its totality, is the self-manifestation of spirit.

But how can an over-self or superperson be conceived to be immanent in human nature, since the human person seems in essence to exclude the immanence in it of any other self? Is there any sense in which it might be said that one personal spirit is immanent in another without absorbing that other into its inner being? I think there is. First, let us consider in what sense a human person can not be a part of an absolute self.

Finite selves are never perfect personalities. We are partly things and partly persons. As things enmeshed in the system of the spatial-dynamic world, we are eddies in the physical continuum, local and temporal centers in the universal motion-system of the material universe. As things we are insubstantial impermanent pseudo-individuals. As things we are transitory modifications of the flowing cosmical energies which are the manifestations of the world will.

Finite selves in their truer and inner being are not mere fragments of a whole, not mere bits of an absolute continuum. In their inner being they are severally real and unique—self-feeling, self-determining centers of experience and deed. In this regard finite selves cannot be mere contents of an infinite and absolute self. The will of a finite self is not a bit of the absolute will. The consciousness of a finite self is not a mere content of an ab-

solute consciousness. Nearly all the arguments of the absolute monist or singularist on this score involve the fallacious assumption that to know anything truly and wholly one must *be* that which one knows, that to feel utter sympathy one must be the person one sympathizes with, that to coöperate in willing, one's own will must be existentially identical with the will with which one coöperates; and, in brief, that to be truly related to anything one must be part of that to which one is related. It is assumed that, if the supreme self know and sympathize with my life, or I with his life, we must really be the same self. I must, then, as knower, sympathizer, or coöperating will, be part of the supreme self, and he must be fragmentarily identical with me.

If finite selves are parts of the over-self and nothing more, such a being in all his knowing knows only himself, in all his willing wills only himself, in all his love loves only himself. If this were true then the over-self would not be a person in any sense that is intelligible to human beings. A self that has no objects of knowledge but himself cannot be truly self-conscious, since selves are conscious only in relation to an "other," self or thing. If I have only my actual self to love I cannot be said truly to love. If I will nothing but my actual self I do not will anything.

The assumption of the numerical identity, the existential fusion, of related selves does not hold good in human relationships, and therefore one cannot understand how it can hold good for the relationships of the human self to a supreme self. Finite selves are not lost and merged in one another's lives, by growing into an understanding and appreciation of one another's experience. A person does not cease to be individual, by the deepening and expansion of his insight and his sympathies. My will is not become identical with your will because we will in harmony. Two friends do not cease to be two by virtue of the complete reciprocity of their friendship. Even "two hearts that beat as one, two souls with but a single thought" do not merge in a higher impersonal identity. If they did all the zest of their so feeling and thinking would disappear. *Love* is an expansion of individuality through relationship, not a disappearance of individuality.

The actuality and possibility of all sorts of relationships between selves, as members of a systematic whole, does not imply that selves are merely elements in an absolute self or impersonal spirit. If it were so, as the singularistic absolutist asserts, we

could be haters, murderers, lovers, saviors, neighbors, mothers-in-law, and so on through the entire gamut of human relationships, only because we are all alike parts of the absolute. All our separate finite experiences would be merged in the all-devouring maw of the absolute experience, but as to how and what became of them in the absolute we could have no inkling.

I feel a pain, am in error, tell a lie, fall in love, and so on through the gamut of human experience. My experiences cannot enter into an absolute experience as constituent elements thereof without being altered. If I am really nothing but a part of an absolute, my finite, erring selfhood has no reality of its own. My sense of unique selfhood is an illusion. On the other hand, if one recognize that the finite self is real as such, it may be known to a supreme knower, both as it is for itself and as it is for him. I may in some degree know you both as you think you are and as I think you are in contrast with what you think yourself to be. If I can know and harmoniously share my friend's feelings and thoughts without being that friend, surely a supreme self might know us all without our merging into him!

Since, in the matter of conscious experience, to be is to be felt or known in some way, if my being be real only in and for the all-knower, then my being as I am for myself is unreal. But since to feel is to be as an experient, my conscious being as it is for me in my personal feeling must be real in some degree. For the time being I am as "good" a reality as anything whatsoever. To make finite selfhood simply a constituent element, existing no one knows how, in the experience of the absolute self, is to "de-realize" the finite self, and to put in its place an empty abstraction. For, if my feelings and purposes, as I have them, are not real, what actual basis is left for determining the character of an ultimate reality obtained by merging and losing all finite selves in an abstract absolute unity? There is no more ground for assuming the existential oneness of a finite person and a supreme self than there is for admitting the existential identity of two finite persons—no ground at all, in short.

Finite selves enter into a great variety of relationships—spatial and temporal, affectional, volitional, and cognitive. They may likewise be in a variety of relationships to the supreme self. They may be ignorant of him, indifferent to him, hostile, friendly or devoted.

The universe of persons, which alone realizes the meanings and intrinsic values to which the universes of insentient nature and of organic nature are tributary, is a society of selves. The supreme self, if such exist, must be the ultimate example and type of selfhood, the source and sustainer of the intrinsic values of the society of finite selves, and also the unifier and director of nature, which is, in turn, the theater for the realization of finite selfhood. Finite selves may indefinitely progress in their degrees of inner harmony of will and insight, and proportionately progress in their harmony with the supreme self. We know and feel and act with other selves because of a community of character—a community of spirit, of ideals, and purposes. The ultimate source of this rational and ethical community of life must be the supreme source of selfhood. We know nature as the theater and instrumentality of human social and personal life. It is the meeting place of selves, the medium of their interactions and intercommunions. The unity and interconnection of nature with selves, and of selves with one another, points us to the conception of the ultimate ground of order as the great other spirit or over-self, who sustains the order of nature and the order of humanity, and progressively manifests himself as creative source, in the ascending scale of individualities from the material individuum or center of physical activity up to the most fully harmonized rational and social selfhood.

The extreme singularist and the extreme pluralist are alike guilty of the same fallacy in their treatment of selfhood, that of assuming that the uniqueness and individuality of a finite self involves its absolute impenetrability. They conceive the finite self as a self-enclosed particular. The singularist asserts that, if the finite self has *any* independent being it must be wholly impervious to relationships; and therefore the world is a chaos unless all so-called finite selves are mere fragments of an absolute self. If there be more than one ultimately real self there is chaos, says the monistic absolutist.

The extreme pluralist asserts equally that selves are mutually impenetrable and that their relations are wholly external, therefore selves cannot form an organized whole of communicating lives. Each one is forever shut up tight in his own skin. Thus we have Leibniz's "windowless monads"; and, then, in order to explain their relations, the artificial and inconsistent, though

necessary, hypothesis of a supreme governing monad who is the ground of the preëstablished harmony of activities among the monads.

In contrast with both these positions, the truer view starts from the principle that selves, though existentially distinct centers of feeling and deed, are not shut out from one another's lives by impenetrable and unscalable walls. The kinds and degrees of intimacy of relations between selves are various. We cannot enumerate all the types of mediate, intermediate, and immediate relationships, not only because these are at any moment so numerous and complex but also because, in a dynamic universe, relationships change and evolve with the evolution of the elements of reality.

It is passing strange that this erroneous theory of the mutual impenetrability, the ultimate incommunicability, of selves should be advanced by some who would justify a religious view of reality. For the deepest and, philosophically, the most defensible type of religious life is an enlightened mysticism which finds and feels the working of the cosmical spirit in the life of inner personal experience; and in the course of man's spiritual history traces, by the light of this immediate living presence to the individual soul, the growing manifestation of that spirit. Such a mysticism is intellectually justified by its close analogy with the æsthetic experience and the higher interpersonal emotions. Historically, it is justified by the part which it has played in the work of prophets and reformers, in the rejuvenescence and purification of religions. If its validity cannot be proved to those who have felt no touch of it, on the other hand, no new discoveries of natural science or historical criticism can invalidate it. Moreover, the presumption is that those who have it not at all are deficient or blind in the matter of a worthful and significant experience, as are those who have no eyes for the beauties of nature, or no hearts for friendship and love.

The doctrine of the absolute impenetrability of selves is then an error. We finite selves are separated by our bodies. We are kept apart still more by our cross-purposes and conflicting desires, by our self-will, our stupid blindness and lack of sympathetic and rational insight. But we are never wholly kept apart. Friends and lovers do live in and through one another. We do at times seem to have immediate and vivid insight into one another's inner

lives. We are able to merge our narrow, blind, egotistical lives in other lives of sympathetic insight and self-forgetting devotion. We can and do save ourselves as rational and spiritual persons by dying to our exclusive and blindly irrational biological selfhood. Indeed, immediate intuition or insight is the normal manner of knowing another self. We do not first observe the motions of another body and then, by a deliberate process of inference, project a mental self into it. This explanation of the way in which one self knows another is a construction of the psychologist and epistemologist. Immediate knowledge comes first, differentiation and analysis afterwards. Round-about inferential knowledge of other selves is intermediate between naïve immediate insight, and the higher insight based on community of ideas and sentiments amongst peers.

St. John and St. Paul, St. John of the Cross, Meister Eckhart and Jacob Boehme, Spinoza, Fichte and Hegel, Shelley, Wordsworth, Tennyson and Browning, and many another mystical poet, seer, and philosopher may have been right in affirming the intercommunicability of selves.

In normal life the tremendous and generally unnoticed influence of suggestion, the divining by friend and lover of another's attitude of feeling and thought, the whole swift immediacy of psychical *rapport* on which the interest and zest of our intimate social intercourse so much depend—all point to the intercommunicability of personal life as an integral part of the goal of selfhood. No wonder that, hampered as we seem to be by our bodies, differing as we do in the varied play of our stresses in language and gestures, with conflicting interests and cross purposes, our lives often seem wholly private and isolated. And yet probably every self hungers at times to lay itself bare before some other self, to throw away its masks and be its own naked reality, however scarred and specked, in the sympathetic presence of some other loving and forgiving self. As selves grow in rationality of insight, in universality of outlook and aim, in sympathy and wisdom, they become more and more intercommunicative.

In brief, in the most intimate and significant human relationships, the spirit of one person may be immanent in another without either losing their distinctness. After years of happy wedded life a man and woman will each show the working of the other's spirit without either losing their own individuality. Indeed, the

better the union the more genial the atmosphere for the development of the essential personality. The like is true in deep and lasting friendships. And are not the spirits of the creative heroes of the spirit—of poets and sages, of prophets and revealers, of great lovers of their kind and great lovers of beauty and truth —immanent in kindred spirits through all time? Are not the spirits of Plato, Jesus, Gotama, Socrates, Virgil, Shakespeare, Spinoza, Goethe, alive as immanent in these who are inspired by them throughout the ages?

If the above be literal fact, as I believe, then we may carry the argument on and say—the over-self, the superpersonal spirit is immanent in humanity in the sense that, as men respond to the incitements and materials for spiritual development that his ever energizing life offers to them, they become partial incarnations of his spirit.

The supreme spirit would then be the conservator of all the intrinsic values of selfhood—the self for whom all truth is valid, in whose purposive will perfect goodness is embodied, of whose creative life beauty is the adequate expression. In the supreme self the so-called eternal truths, which are adumbrated in our finite minds by the principles of logic and mathematics, and by whatever other principles of truth there may be, are the laws of operation of his creative thinking. Similarly, the values of goodness must be directive principles of his activity. The first principles of knowledge are the constitutive logical principles of any world. Just so the intrinsic ethical values are the conditions of the life of personality, and the values of beauty and personal emotion are the conditions of harmonious self-expression and self-fulfillment.

The over-self cannot be infinite in the sense of being an indefinite potentiality of any imaginable kind of action, thought, or feeling. That would be a false infinite. He could not, for instance, be a cosmical liar or be self-contradictory in his thought or will. Moreover, if he affirms the reality of other selves, he must respect that reality. He can do no violence to the ethical nature of selves. And he can only be a self by finding his own self-fulfillment and self-satisfaction through the growth of finite selves in self-fulfillment. A self who was alone in the universe, or who alone was the universe, would be no genuine self. The supreme self may not be limited by any externally imposed phys-

ical conditions, but he must be conditioned in his own self-determining life by his own concrete spiritual nature or character, and by the character and conditions of the finite selves who are the members of the universe nearest to himself in nature. Whether the supreme self calls finite selves into being in time, or whether these are eternal coexistents with him, is a question not susceptible of dogmatic answer perhaps. I have already indicated that I believe the evidence to be in favor of the view that finite selves originate in the world process. Whether any factor independent of the supreme self is operative in this process is a question to be discussed in a following chapter.

The over-self must be at once universal and individual. He must be the most concrete universal, and the most universal individual. He is the supreme individual, since his creative thought or world-determining volition issues in the formation and sustentation of a cosmos or whole which has the determinate character of a coherent system. In other words, his world is an individual whole inclusive of many grades of finite individuality. He, as the ultimate ground of this individual whole, must be the perfect individual, the final source of all differentiation and unification. He must be universal, since he is the source of all individuation; that is, he determines the position, qualities and relations of each element in the total system of the real. The distinction and separation of the "that" from the "what," the looseness of existence from content, as Mr. Bradley is always saying, which obtains for us, because given facts remain partly opaque and disjointed, cannot exist for him, since there can be for him no "brute" externally given "thats." He can have no need of our abstract general concepts or laws. These we abstract from the similarities of particulars which in part resist our efforts to comprehend them in their systematic relations. Thus our concepts or "universals" seem to stand outside the particulars whose similarities they represent. We are not able to see how they cohere into a complete system or cosmos, although insight into the latter is the ideal goal of knowledge, towards which we do make measurable progress. The place and character of every particular in the universe must be translucent to the over-self, since it is defined by his creative thinking.

The knowledge of his world by the over-self must be direct or immediate and intuitive. If he could know me only inferentially,

his knowledge would be of a piece-meal growing character, always liable to error and less adequate than my own knowledge of things and, more especially, of selves. For human knowledge is not, in its more adequate forms, purely discursive. In knowing things, and still more in knowing selves, the foundation of thought is immediate experience. In perception the mind is in immediate contact with things and the function of discursive reasoning is to organize, interpret, and illuminate the immediate data of experience. The goal of thought's activity in the field of perceptual experience is the achievement of a higher immediacy—a harmonious and articulated intuition of reality. Reason sets the datum of sense in its context and relationships. In the knowledge of other selves the intuitional factor plays a still greater part. Here discursive thought has a more subordinate rôle, since knowledge of persons is fundamentally immediate or intuitive. In the enjoyment of nature and art, in friendship and love, the ratiocinative factor is more fully absorbed in the intuition which it illuminates than in our scientific knowledge. It is in these intuitive and affectional experiences that we most nearly apprehend the perfect character of an ideal cognition, one which penetrates with direct insight the entire system of the finite and takes all the elements and relationships of the latter up into an immediate grasp.

Immanence and Transcendence

We have arrived, by a process of cumulative inference, at the notion of a supreme spiritual community, superpersonal life, or overself, the absolute reality. We have argued that the physical, spatial, and temporal world involves a conservingly active ground, a perduring principle of order; that the nature of truth involves belief in a supreme systematic thinker or mind; and finally that the world of persons, considered as the sole bearers of values, implies an ultimate good, which is the ground for the attainment and conservation of personality.

The final question is this: Is the absolute ground of existence and value an impersonal principle that exists solely by virtue of its immanental activity in nature and humanity, and is it thus wholly exhausted and contained in its universe; or is the supreme principle really an overself or spiritual community which transcends all finite selves and their world? If it be said that the

supreme community or cosmic self must transcend the world, in the sense of being outside it in space and before it in time, I reply that the conception of a universe as a world beginning in time and created by an external first cause, which initiated its creative activity at a specific moment in time, is a contradiction. One would have to suppose a cause, why the first cause began to act at the particular moment when creation began. Then the first cause is no longer a first cause, and we are launched out again on the endless regress of an infinite series of temporal events. If it be said that this difficulty can be avoided, by the assumption that time was created with the world, I reply that the statement that time had a beginning is self-contradictory, since a beginning implies a time before that beginning; but a beginning *in* time is no beginning and therefore time can have no absolute beginning. A beginning of beginnings is the beginning of nonsense.

Moreover, the conception of a cause spatially external to that which it causes or creates, as something outside itself in space, involves us in all the difficulties with regard to the passage of the cause into the effect; in short, in all the difficulties which we have discussed in dealing with the notion of discrete entities in wholly external relations. The notion that the universe came into being at a point in time by the temporal act of an extra-mundane cause is thus untenable. Creation must be the endless expression of God's eternal activity and, hence, an eternal process. The world cannot be spatially outside God, nor God outside the world. But it does not follow that His character is wholly exhausted by His continuous expression in the world. In rich and perfect self-completeness He must transcend the world as it is at any moment. He cannot be less, and He must be much more, a self than any finite self. He must transcend in insight, in wealth of content and harmony, and in the ceaseless self-activity, of His will, all other selves. The difficulties in regard to transcendence and immance arise, it seems to me, largely from taking these terms in a physical or material sense. *When we say that God transcends the world, what we properly mean is, not that He is outside of it, but that, in the quality of His character or nature, in His wealth of content and harmony of inner spiritual being and action, He transcends in worth or value all finite selves. He is the absolute center of values.*

I admit the great difficulty in conceiving how a conscious

community of being can be uniquely self-conscious, and yet be the unitary ground of a world of particular things and finite persons. Still we do have inklings of how this may be so. Even a great representative human individual, such as an Abraham Lincoln, may, with all his unique and private selfhood, be in a genuine sense the source and unifier of a nation's will. A Jesus may be solitary and transcendent in his inner life amidst the crowd and even amongst his beloved disciples, and yet be the unifying will of their wills, spirit of their spirits. And the human spiritual hero fulfills this function just in proportion to the measure in which he incarnates the universal cosmical will. Of course there is a fundamental difference between any finite individual, as dependent on the supreme will, and that will. But the difference must be one of degree. Finite selves must be the infinitely varied manifestations in time of the universal self. There must be identity of spirit amidst all the varied forms and degrees of its manifestations. The overself must indeed be self of ourselves. Spirit is enriched, not impoverished, by self-impartation. It lives and grows by giving and spending.

I do not say, then, that the belief in the transcendency or overselfhood of the cosmical community has the intellectual cogency that I attach to the belief in a dynamic and rational principle of unity. I say only that, if the intrinsic values of persons are really values, persons are the most significantly worthful realities in the world. If there be no personal or superpersonal ground for their lives, the meaning and goal of nature's evolution and humanity's ceaseless travail seems to turn to nothingness. Therefore faith in the spiritual character or selfhood of the supreme unity is involved in the recognition that personal values are the finest fruits of the process of reality. Such faith is rational, since without it the whole process of reality, with all its striving and suffering, all its passion and vision, all its achievements and heroisms, turns to dust and ashes.

Perhaps the greatest obstacle in the way of conceiving the union of transcendence and immanence in the Godhead is the spatial imagery which clutters our thought—immanent is taken to be "residing spatially inside"; transcendent to be "living spatially above or outside of." I do not say that we can expect to free ourselves completely from these associations, nor that we should ignore the question of God's relation to the space-order. If "the earth

is the Lord's and the fullness thereof," if "the heavens are his dwelling place," then space is neither a limitation of His spirit nor a distortion of His glory. But I suggest that, if spirit be trans-spatial and capable of direct communion with other spirit, the problem becomes somewhat less insoluble. May we not say that in the whole physical order God is immanent in the sense that the whole continuing system of physical and vital energies constitute the continuous expression of His creative energizing will, but is not identical with his will; whereas he is "closer to us than breathing and nearer than hands and feet" because, while we are distinct spiritual existents, we are spiritually of the same nature with Him? *As persons we are existentially distinct and inferior, but essentially identical with the Divine.* We can commune with Him as with our fellowmen, by virtue of community of nature; in fact in spiritual communion with our fellows we do essentially commune with Him.

The permanent value of the doctrine of the Trinity seems to me to lie in its attempt to express the fact that God is a perfect spiritual community, a superpersonality. God the Father is the eternal creative ground of all reality: God the Son is the eternal self-impartation or self-manifestation of the eternal ground in the eternally creative world-process: God the Holy Spirit is the eternal process of union or communion, by which the eternal ground is felt and recognized to be forever energizing in the world-process and, especially, in the historic life of humanity; by which, in brief, the Son in His fullest being as the Divine in humanity is felt to be in union with the Father of all. Thus, through the doctrine that God is a spiritual community, higher than and yet *verily* or *in essence* present in the human world, justice is done to the social nature of spirit and to the doctrines of immanence and transcendence, which otherwise are incompatibles. Only a spirit or personality, at its highest, can be at once immanent and transcendent; can at once live and know and love in and through other spirits and, at the same time, by virtue of the fact that it is a spiritual center or unity, can transcend the other lives in and through which it lives and knows and loves. Through the interplay of personal spirits, living, moving and having their being in one another's being and thus, through that deepening communal life, attaining their own fullness of being, are we furnished with an adequate clew to the tangled facts of experience. Only thus

do we get hints as to how this seemingly disordered world of ours may be the expression of an eternally perfect order of existence which is, at the same time, the eternal order of personal value. Through the discovery of, the contemplation of, and the communion with this order alone, is the fretful stir unprofitable and the fever of this jarring world laid at rest. Thus do our noisy years become moments in the being of the eternal silence, where alone there is peace and joy and power for the human spirit to live out its length of days in the light of the eternal.

I have hitherto employed the terms—"overself," "supreme spirit," and "supreme spiritual community"—to designate the supreme reality. I have done so advisedly. Whether one shall call the supreme being a personality or an individual will depend on one's conception of these terms. Those who, like Dr. Bosanquet, regard a person as a finite self existing only in social relations, call their absolute the one perfect individual, since it is the all-inclusive and utterly harmonious being. This seems to me an unaccustomed restriction of the term individual. A finite self, and even an animal organism, possesses individuality. To me a person is a rational and social individual, and the supreme person is the perfectly rational and social individual or self-conscious being. The supreme being is the spiritual ground of finite personality, which is social, and hence is the perfect personality because the perfect community and *vice versa*. I regard personality in man as always imperfect and subject to development; and the supreme person as the ground of the development of man as a rational and social and spiritual individual towards fuller personality. Therefore I would suggest that God is the perfect personality, because He is the perfect community. His inmost character or nature must be expressed most adequately in originating and sustaining the life of the community of finite selves in and for whom alone values exist. He must be self-imparting love.

But the supreme spirit cannot be the impersonal or unconscious spirit of even a perfect community. Imperfect communities have no effective existence and no live values, except in so far as the prevailing spirit of the community finds adequate realization in the actual consciousness of living members thereof. The impersonal spirit of the community is an abstraction. To set up such a ghostly entity as the supreme principle of unity and value would mean that there is no real unity and no real ground of values. It

would be to ground the only worthful life in the world on a non-entity. The supreme reality, if it be at once the ground of the order of values and of all other orders, must be a self-conscious spirit. It must be the concrete source and goal of the lives of all other spirits, the perfect self which ever energizes and manifests itself in the world, but ever transcends in the harmonious unity of its interior life its finite manifestations.

Such a conception of a concrete spiritual life at once immanent in the world and transcending, in the heart of its own being, the world, is, I take it, what the doctrine of the Trinity has aimed at. With the relation of any historical person to the establishment of this doctrine, or with his place in the Trinity, the philosopher is not concerned. Such questions belong to the history and interpretation of religious experience and faith.

The metaphysical doctrine of the Trinity, although it is basic to the Catholic theology of Christendom, is, of course, not confined to the latter. It is the product of the neo-Platonic development of the logos doctrine. Its logical elements, in barest terms, are the eternal ground, the creative self-manifestation of that ground (the logos) and the conscious union of the creative and revealing logos or Son with the eternal ground or Father. Thus we find in Plotinus a Trinity of supreme good, intelligence or spirit and world Soul, and it is the central conception of the metaphysics of Hegel. A history of the development of the speculative doctrine of Trinity is much to be desired.[1]

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[1] For a modern statement of the Christian doctrine see, John Caird, *The Fundamental Ideas of Christianity;* for a brief history, see the article, *God; (Biblical and Christian),* in Hastings' *Encyclopædia of Religion and Ethics,* Vol. vi. Also the books of C. C. J. Webb, *God and Personality, Divine Personality and Human Life.*

CHAPTER XXXVII

PERFECTION AND EVOLUTION[1]

The universe in its totality is dynamic and alive, and probably value-realizing. Its meanings are fulfilled in the effectuation of the values that inhere in personality. We must recognize, of course, that the whole character of the cosmical System of Values is not, and cannot be, known to human beings, but this limitation of our insight does not nullify the probable validity of the hypothesis that the movement towards personalization is the most adequate description of the world meaning that can be framed by man.

The supreme spiritual community or over-self has been presented as the organizing and sustaining ground of values. It is conceived to be the ultimate self-determining Order of Life and Spirit, which expresses itself in the personalizing process of the empirical world. In "willing" (the most adequate term we have, although inadequate to the nature of the cosmical spirit) the lives of finite selves, with the whole complex of historical processes and individual histories involved therein, the Over-Self expresses his own enduring creative meaning.

Now, a world which has a significant and worthful character must be a realm of growth or evolution. To assume that reality must be eternally perfect, that it can have no seasons and bear no fruits, is to assert that ultimate reality is void of all positive relation to the process of empirical reality and to reduce the latter, with all its activities and values, to illusion. It is to make of this serious, zestful and worthful drama of selfhood and community-life, an empty dream.

It follows that the supreme self cannot be a timeless experience, an eternal and motionless "now," for which all change and evolution are unreal phantoms created by the finite mind. I can find neither meaning nor worth in the conception of an absolute

[1] This chapter is the revised form of an article, "Time, Change and Time-transcendence" in *The Journal of Philosophy, Psychology and Scientific Methods*, Vol. v, No. 21, October 8, 1908, pp. 561–570.

timeless experience, in which all temporal and relative experiences and deeds are absorbed into a motionless eternal "Now," a *"Nunc Stans."* Such an absolute would be out of all intelligible relation to our actual experiences, and without any definable value for the interpretation of our lives.

Since either our temporal world is real, or actual experience is wholly illusion, we must assume that, for the ultimate ground of selves and values, there is real succession and growth. The supreme community of life must experience change and evolution, for it is essential to the teleological and spiritual character of reality that individuals shall achieve actual development. Reality, as society of selves, cannot be a static and absolutely closed system. Within the limits set by the supreme principles of the world-order, there must be free movement of persons with some degree of self-determination. This need not be a condition imposed from without upon the universal spiritual community, since it is in this very world of many differing and developing individuals that the supreme meaning and value wins expression. The supreme spirit may know, with the single and continuous synthetic grasp of his intuitive insight, all the determinate possibilities of growth open to finite selves, if he creatively wills their being, and therewith, the conditions of their growth. He may know the whole range of activities possible to all beings capable of choice. He may know the limits of error and evil open to every individual, since these limits are set by the determinate character of his world and of each individual in it. In short, he may know that the limits of "negation" in the finite realm are those of mutual implication and contrast in a concrete and systematic whole, not those of bare contradiction by which things are forever driven apart.

I employ the term "negation" here in the sense of living and concrete difference or contrast in an actual system which coheres through the positive qualities and mutual implications of its members, so that all differences in the system are real when their meanings are developed. The world of "morality," "society," or "truth" is such a system. "Bare" negation, on the other hand, is contradiction which merely denies the presence of some reality, for example, "not-good, not-wise," etc. I do not think that bare negation is ever intelligible. All significant denial involves affirmation. Spinoza's *Omnis determinatio est negatio* is a half-truth. The other half is *Omnis negatio est determinatio.*

Concrete examples of such individual systems of differences are: a family, which is and coheres through the differences or contrasts of husband and wife, child and parent, brother and sister; a community or state, the life of which is maintained and enriched by the specialization of individuality and function of its members; the body of truth in any well-organized science, etc. The ultimate standard or ideal criterion of truth, morality, social life in all its forms, as of reality as a whole, is that of a system of differences or particulars, constituting by their mutual implications a universe of individuals which itself is an individual whole or community.

When Hegel speaks of the "power of the negative," I take it that he means that reality is a living and individual system or society of cohering and mutually implicatory individualities. The dynamic quality of negation or contrast depends on the fact that the evolution of reality is an evolution of life, intelligence, and spirit. The power of the negative is that of definition or fulfillment of individuality through differentiation and the synthesis of differences. If reality at its highest level be "spiritual," only thus can development take place in it, since all spiritual development involves the interplay of contrast and organization in the elements of a totality; whether that totality be an individual organism or mind, a social group or a system of ideas. Only if reality were static, and evolution an illusion, would the power of negation be meaningless.

The supreme spirit of life can only be the ordering principle or organizing power of a world in which there takes place, with every fresh achievement of selves, positive increase of value, and, with every fundamental failure, loss of value. How then can such a Community or over-self be conceived as perfect? Well, if "perfection" must exclude any activity of such a self or communal spirit in a world of imperfect beings, and any sympathetic relation to development therein, let us admit that the supreme spirit is not absolute and is imperfect; but, in this case, judged by the highest human standards of value, such "imperfection" has more worth than a static and lifeless perfection. An absolute out of all positive relation to the world of developing reality is neither a community of persons nor an over-self. It is simply a motionless mechanism. Static perfection is death.

Progress, in and through the deeds of a constant succession of

individuals and generations in the continuing life of humanity, its societies and cultures, must constitute real values in the universe. Who would deny that the world was made positively richer by the development of the classic culture of Athens, or of the Christian religion, of Elizabethan literature, or the art and science of the seventeenth and nineteenth centuries? In the process of spiritual evolution, as well as in its forerunner, vital evolution, there has been real growth and enrichment. So long, then, as the historical process keeps up must not the supreme community be imperfect and subject to growth? Since it participates in the historical evolution of finite lives and in the enrichment of values in these lives, must not its own life be continually enhanced thereby? In regard to this difficulty I suggest the following considerations:

1. Any sort of progress presupposes standards of estimation. Progress in personal or spiritual values presupposes criteria of value, that are not themselves subject to the change and transmutation which they serve to evaluate. If the True and the Good, in the realm of finite development, gradually win greater effectiveness, or have definite meaning, however dimly apprehended this may be by finite agents, there must be ultimate standards of truth and goodness to which these finite achievements approximate in varying degrees. The ultimate values may unceasingly win expression in a variety of finite realms, but their inherent qualitative character is not thereby altered. The progressive movement of finite spirits, in the realization of intellectual, moral, and emotional values, means that there function, in every successive stage and differing phase of cosmical evolution or individual development, permanent intrinsic values. Evolution or progress without direction, goal, or standard, is a meaningless contradiction in terms. A value that is solely relative to another value, and so on indefinitely, is not a true standard of value.

2. Every significant individual life or epoch of historical culture must have intrinsic *worth in itself,* and thus be a worthful element in the dynamic process of reality. It cannot be a mere link in an endless chain of a "progress" that has no "whence" and no "whither." Nothing in experience has any intrinsic worth, unless it bears within its own bosom the power of yielding *immediate values for selves.* Hence, an endless succession of temporal stages, each contributory to a possible future value never fully realized, is without meaning and value. Always the living *now*

must be laden with intrinsic values. The latter cannot wait to win perfection at some remote date, or even a dateless perfection. It must be ever winning perfect self-expression, although the values that are in the possession of any particular finite self or culture may seem imperfect. The True, the Good, and the Beautiful may seem, to any finite insight, imperfect; but the finite self's very judgment and feeling of imperfection involve the presence in his experience of the sense of perfect values, as now and ever valid and effective. He condemns his own partial deed only by the light of the perfect deed.

3. Progress in individual lives, and in historical stages, in the attainment of higher values or the fuller possession and wider distribution of already recognized values, does not necessarily mean that the ultimate self, or ideal community of persons, as the sustaining and effectuating ground of values, must change or progress in its own "character" or "will." The ultimate ground of values may maintain itself continuously, as the enduring unity, throughout all the diversity of its historical relations. As the dynamic community in which all sundered and fragmentary meanings of empirical reality are knitted up, the over-self may fully conserve and express, in the wealth of its self-manifestation, all the intrinsic values which in the various phases of the empirical order, as taken in isolation from each other, seem impotent and unfulfilled. Each element seen by itself alone is not truly seen, and yet each may contribute to the perfect whole.

The difficulties involved in thinking the relation of a temporal world to perfection seem to arise in part from making the quantitative view of things a final norm. An increase in the number of finite selves who win and enjoy the highest values is not an alteration of the intrinsic qualitative character of these values. Individuality does not mean oddity, and the value of individuality does not consist in adding something that the universe never had before. The value of personal individuality consists in its own possession of, and direction by, universal values.

The relation of a supreme spirit to change and history will perhaps be made clearer by some general considerations on the nature of time.

Every idea of time, from the crudest to the most abstract, has its roots in the present experience. No past has actuality or meaning which is not involved in the living present. A "present" can

not strictly be defined. It eludes the very conditions of precise definition, since, as soon as one takes the first step towards apprehending it in thought, it has already become past. We are all sure of the present in which we live, as we are sure of our own identity. The "present" offers the same obstacles to definition that the living self of our immediate experience offers. In fact, the immediate consciousness of the present and the immediate sense of selfhood are the same thing, viewed from different standpoints. Ever flowing on or "becoming," the living self is the experienced interpenetration of various qualitatively different phases, of a progress with heterogeneous aspects and a variety of stages, in which "past," "present," and "future" are only relatively and indefinitely distinguishable.

We can conceive of other beings, possessing minuter or coarser time-perceptions than ourselves; as having, in relation to an objective standard of measurement, much longer or shorter "presents" than we have, that is, as living in different "tempos." [2] The living present, which we distinguish from past and future, but which actually has duration, and, hence, includes past and future in its own *apparent* instantaneity, has been called the "specious" present. It does not contain any sharp delimitation of before and after. It "becomes," but does not begin or end, and its duration is measured by the aid of retrospection and in spatial terms. As soon as I undertake to determine the content and extent of my present, the present to be so determined has already become past. The actual present is now the incipient purpose and plan of measuring the fleeing specious present.

The actually experienced present, then, need contain no definite awareness of change. And yet, the present cannot be a motionless point or dimensionless line transverse to the direction of change; for what then becomes of past and future, and how can we speak, even retrospectively, of the present as having concrete reality? If the present have not breadth, what becomes of time and change? In truth, in the actual present the self transcends discrete change or mutually external time-lapses, through the act of synthesis by which it grasps a succession as one order. The so-called timelessness of a self consists in this power of continuous

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[2] *C.f.* J. Royce, *The World and the Individual,* Vol. II, Lecture iii; also O. Liebmann, in *Zur Analysis der Wirklichkeit,* 4th edition.

durational synthesis. When I begin to recite a line or stanza of poetry there is actually present in my consciousness the feeling of the continuous movement of meaning of the line, or, perhaps, of the entire stanza, while I am actually saying a single syllable. Or I sit down to write a discussion which I have previously thought out, and, as I proceed, the argument develops out of the nascent synthetic feeling that I have of the discussion in its entirety. The actual present, then, is constituted by a progressing synthetic unity of self-activity involving continuity of interest and meaning.

And the "past" is a reconstruction or revival, determined by the synthetic continuity of interest in the living flow of actual experience. A tiresome experience, such as listening to a bore, which seemed endless while we were undergoing it, shrinks to almost nothing in our recollection. An experience, unified and controlled by a strong emotional interest, may be devoid of immediate consciousness of succession and of all explicit reference to past and future, because its successive features (successive for retrospective analysis) are fused together or interpenetrate in one whole of emotional tension, *"Dem Glücklichen schlägt keine Stunde."* In recollection, on the other hand, such an experience bulks large because of its unity or vital interpenetration with the actual present.

The actual basis of belief in the past's reality is the living "now" or "duration" of experience. The past is a reconstruction made by a thinking self. The possibility of this reconstruction and, by consequence, the present reality of the past depends on the filiation of interest and meaning in and with the present synthetic movement of a self. In this time-spanning synthesis past and present are united, and, without it, the past would not now be recognized as having once been real. The basis of all reconstruction of a past period, for example, in human history, in geology, or in the history of the solar system, is always an inference based on an assumed analogy or continuity of mental, moral, or physical processes then and now. We begin with certain present data—manuscripts, social ideas, or rock strata—and we interpret these in terms of a continuity of process. The Periclean age, the Archæan epoch, the primitive star mist, are all constructed on the assumption of duration of process or continuity of movement—in the affairs of men, the formation of earth structure, the chemical and physical processes of the solar system.

In the same way the future depends on the present. The future is the present forward-reaching. It is the incipient tension of developing, and as yet unsatisfied, interests, desires, meanings. The musical symphony, the operatic phrase, the present aching yearning of love, the present imperative stress of ambition, emotionally demand their own completion. For the failing old man in his dotage there is literally no future on this side of the grave. For him the past and present intertwine and are all, unless the urge of religious feeling quickens him to project himself into a life beyond the grave. For the young man, on the contrary, life is big to infinity because of his strong interests and desires.

Our notion of time, then, is the form into which we project, from the living present, the continuity of our interests, aims and values. Psychical time is the shadow cast by the unsatisfied will of man along the world of cosmic becoming. It is the mark of the incomplete moving towards completion. And the so-called *direction* of time's flow is determined by the tensions of human interest and aim. Hence, the movements of history and geography appear as irreversible series of qualitatively individual acts and never-to-be-repeated events, in contrast with the reversible character of a purely mechanical system. The historical development of mankind and of the world, as of an individual, constitute series of qualitatively discrete or unique occurrences. The continuity of any historical whole, for example, the life of a great man, the history of England or of Christianity, is dependent on a community of meanings and values which interpenetrate the succession of events and constitute them a whole. Every real history is constituted by a spiritual synthesis. Hence the so-called absolute continuity of time's flow is a misleading metaphor. In so far as the movement of reality is discrete, actual time is discrete and heterogeneous. There are as many perceptual time-series as there are striving and developing selves. Perceptual time, as the form of experienced becoming, must be, so far, at least, as imperfect beings are concerned, coincident in extent with change.

Since the concrete present alone is actual, and the past and future have reality only as factors in the living present, how can there be any consciousness of succession? How can the past be in the present? Some writers hold that there can be no direct sense of transition or succession in experience, and that the past is present only in the sense that *now* a part of the past is *represented* in

the present as part of the present. They hold that to suppose that there is transition is to become involved in the antinomies of the endless regress, since, if the temporal experience be a continuum, it must be infinitely divisible and hence can contain no actual "moments." And, if it be not a continuum, then between the past instant and the present there is a "timeless" gap which cannot be bridged over. But it is admitted that there are in the present vague *pointings* backwards and forwards. Are not these pointings just what is meant by the sense of durational transition? I find in introspection that the past and the future, as factors in the present, mean for me sometimes *feelings of transition.* I find also that I have experiences without feelings of transition, and in which the past is present simply by way of representation as my present memory of the past. But I do not think that a static representation now of a past could really mean a past for me, unless I have been conscious of transitions in my own experience. Both the sense of transition and the power of representation of a past experience are factors in the consciousness of time. Temporal experience is not a homogeneous continuum like pure space, but it does involve continuity of meaning and purposive experience. The consciousness of continuity in a succession of discrete moments, on which the cognition of change and development depend, would be impossible without the continuity of the self through change. The partial identity of the past with the present, by which alone a distinction and a relation can be recognized in successive experiences, involves the identity of the self which knows change without and within itself. The permanence of a self is involved in the consciousness of time and change, and, in turn, the recognition of time is involved in the consciousness of the self as continuous or self-identical through change. "Only the permanent changes" and "only the changing is permanent" may seem paradoxes, when set side by side. Nevertheless, these propositions, taken together, state the fundamental conditions of all intelligible experience; and their roots are in the self, which is continuous or endures in change.

Perceptual time is adjectival. Our actual perceptions have a temporal aspect, but we do not perceive time-in-itself or physical time. Whatever reality time seems to have, over and above the direct consciousness of transition in becoming, is due to its identification with a common measure of change. Time gets pictured as the container, of which change in orderly succession is the content,

that is, as a flowing matrix of change. In perceiving and placing events in the time-order, the self projects and sees in perspective, from the "now" of immediate experience, its remembered experiences of change, by generalizing the direction and the rise and fall in tension of its own strivings and satisfactions and ordering them in a quasi-spatial "form" or vessel.

The "form," "concept," or "notion" of measurable time is, like that of space, from which, indeed, it is taken, an empty homogeneity of movement. "Pure" time is figured as an indefinitely moving point describing a continuous straight line, or as a circular movement or as an unceasing rhythm.[3] The "change" of actual experience, on the other hand, is the becoming or development of qualitative differences in experiences, of a manifold variety of tendencies that are organically related in manifold ways in the synthesizing movement of a self's life. Every "now" is a discrete moment or finite element in a process of becoming, whose unity consists in the synthetic interpenetration of these discrete moments. We reflectively think our successive experiences as bound together by the persisting continuity or systematic interrelations of our interests, purposes, and meanings, and the time of these experiences is synoptically conceived as an abstract "form" constituting one continuous whole.

In this synoptic, synthetic activity the self transcends its momentary existential states. Here it reaches beyond the contents of its immediate experience. And, by reflection on this transcendence of the given and the changing, through which transcendence the changing gets ordered and dated, the self discovers that it can go on indefinitely adding together section after section of formal times, that it can indefinitely conceive finite fleeting "nows" as strung together; it can, indefinitely, proceed with the process of analysis or discretion and of synthesis. So arises the ordinary notion of "infinite" time. This is but an abstract image (commonly visual-motor in origin) of the self's consciousness of *logical infinity.* In the case of time, as of space, the real infinity involved is that of the analytic-synthetic activity of thinking. The time of actual experience is always finite. Infinite Time is the abstract representation of the mind's power of conceptual analysis and synthesis of change-experiences. By virtue of this synoptic func-

[3] *Cf.* Chap. 18, *Space and Time.*

tion the mind transcends the finite discreteness of actual succession and conceives abstract time-series. The true infinite in this regard is a time-spanning function of the thinking self. So-called infinite time has no independent reality. And actual finite time is the form of experiences of change.

We can frame no positive notion of a conscious self for which change and succession are unreal. On the other hand, the self maintains a consciousness of its own continuous identity in the midst of change. The consciousness of identity is just as integral to experience as the consciousness of change. Moreover, there rise above the surface of the stream of personally experienced becoming certain uniquely significant, emotional and intellectual experiences, in which seems to inhere the quality of *time-transcending worth or value.* In these the self seems to find permanence in the midst of change.

The continuous identity of the self is marked by striving, feeling and purpose. The self loves and aspires, hopes and plans, etc.; and is aware of its own relative continuity of aim, in the growing consciousness of its persisting interests, in the increasing harmony of these interests, attained through the systematic organization and fulfillment of ends.

The more completely the self is able to harmonize its qualitatively various interests, and to establish a persistent and developing system of ends, the more fully does it seem to achieve and enter upon a life of continuous activity and inward permanence in "becoming"; in other words, upon a life in which change means the growing enhancement of *personal values,* a life in which the past is conserved by fusion with the present and the present grows by interpenetration with the past. Through this unity of synthesis mere blind change is transcended. The permanence of the self is constituted by the persistent and growing organization of values. And the most abiding and self-complete experiences, the emotional experiences and intellectual insights already referred to, are constituted by the fulfillment of purposes, by the realization of intrinsic values. Such are the expression in personal deed, and the presence in personal insight, of universal principles of worth—of those spiritual values represented by knowledge, righteousness, beauty, love. In these experiences the unity of self-consciousness is one of concrete inner organization, of harmonious synthesis. It is a reality that at once persists and progresses. In short, the life

of the self progresses or "becomes" as a unity. Our so-called acts and experiences of time-transcendence are, in every sphere, due to the continued synthesis, by the self, of a succession and variety of interests, values, meanings. Our purposes are effected through temporal processes, that is, series of means. And the principles which I have called "intrinsic values" are the generalized principles of purposive synthesis. The time-transcending quality of personal values does not mean that these values have had no historical conditions in culture-life and the processes of nature. It means only that, to the inherent significance of these values, the causal conditions of their origin are irrelevant. But these values can be real and effective only in so far as they persist through change, and, by this effective persistence and cumulative expression, give a synthetic unity of meaning and direction to the experiences and deeds of selves.

Now, the analogy of our own two-sided experiences entitles us to conceive an ultimate spiritual unity of meanings and values as transcending change through the persisting synthetic unity of the principles by which it controls and sustains a *significant* or *purposive world-movement.* The synthetic continuity of the human self, by virtue of which, in its affirmation and fulfillment of intrinsic personal values, it functions as a persisting dynamic unity; for which the external distinctions of past, present and future are overcome, transcends any formal time-order. If there be a systematic whole of world-meanings (truth, goodness, love and beauty) to which our human ideals or principles of intrinsic valuation stand in some positive relation; then, by analogy, we can conceive change-transcendence that is not negative timelessness. These absolute values would be, by hypothesis, the ultimate conditions for the progressive fruition of conscious life in finite individuals. The only admissible form of time-transcendence would be that of a system of intrinsic values, an effective and controlling unity of cosmic meanings, that did not originate at any definite point in the actual series of cosmical changes and that maintain and, perhaps, increasingly manifest, themselves through series of changes.

Time-transcendence, then, would mean, not the negation of change, but the persistence, through change, of an organized unity of ends that preserves the effective continuity of its purposes throughout the (from any finite point of view) endless succession

of events. From this point of view we may at least partially understand how change may really take place, and yet be subordinated to a unity of changeless or continuously effective meanings or worths which would so control the universe of change. Our own purposes are but partially fulfilled, and, indeed, but partially understood by us. Nevertheless, in so far as purpose is continuously fulfilled, the life of mere change is being transmuted into one of enduring meaning and value. One may conceive a transtemporal knower or self as embracing many simultaneous and successive series of changes in the unity of his conscious activity, in so far as he grasps and maintains continuously the inner relationships which bind together these parallel or successive serial changes; his spirit might be permanently valid in the meanings which he enabled to be realized in a universe of selves, thus constituting their changing lives the instruments and embodiments of permanent values.

The persistence or continuity of an organic whole of intrinsic principles of value, which insures that, in the march of actual events and the alterations of finite individuals, spiritual values are realized, is all that can be meant by a timeless spirit or self, as conserver of intrinsic values. Such a spirit could not be timeless, in the sense of negating the temporal order; nor unchangeable, in the sense of having no positive relation to change. He could transcend all time-series only in the sense of comprehending, in a continuous organic unity or synthesis of relationships, their meanings. He could transcend change only in the sense of maintaining a continuous identity of aim throughout change, and in making the ceaseless succession of cosmical changes subservient to a systematic totality of meanings and values. If there be an organic whole of rational meanings and spiritual values which sustains the entire cosmic system of lives, and which, consequently, is the ground of the harmony between the values or meanings of finite psychical centers, this ultimate organization of meanings is the cosmic spiritual principle or overself.

In brief, the present alone is immediately and primarily real. The past has reality only as a function of the present. The future is real only as the dynamic pointing forward of the present. But the real present is a living and changing whole. It has bulk and duration. It is the active unity of a whole of concrete and varied elements. The presents of finite experients vary in bulk, com-

plexity and duration. All finite presents must be conditioned elements in the cosmical present, the unity of the living synthetic "now" of the supreme experient. The ultimate present may be the concrete self-contained whole of self-activity, on which all finite and partial presents depend. It may be the continuous synthetic process, the completely interpenetrating unity in which the past of the universe lives as a function of the present, and which, by virtue of its continuous activity, becomes the future. The supreme self's experience would thus be the immanent unity of the world-present. Change would take place in the supreme self's world, and the unity of direction and meaning in change would presuppose the synthetic or synoptic activity of his individuating thought. His centralizing or unifying experience would be the unifying principle of all times and seasons. Cosmical time would be a function of his self-active experience.

In place of a dimensionless "eternal" now, the bare negation of all process, I would put the conception of the concrete, individuated, time-spanning now, which has self-movement, duration, and volume. As the synthetic and continuous whole, which grasps all finite changes in the oneness of his own individual and active intuition, the supreme spirit would thus transcend time, but he would not be timeless. He is conceived as not in time, as though time were an independent entity in which his activity begins, changes or ends. Time is in him, since it is the form of his continuous self-activity. His "now" transcends our "nows" but in it, too, there is variety, breadth, depth, and complexity of texture and internal self-development. The "presents" of all finite selves depend upon the unity of the supreme self's present. All succession and change are either internal to or dependent upon the unity of his will and insight. Actual time is a function of experience. Ultimately change and succession must be functions of the supreme self's activity. They cannot be forces or entities which exist independent of or outside of his self-directing life. The changes which take place in finite selves, and the changes in the physical order, are not independent of him, since, in sustaining this order of a community of persons and its values, he wills all the possibilities of change in this order. Change and development then must be positively included in his life. He does not change in the sense of being impelled from without by utterly alien forces, but change and evolution must be constituent elements in his all-inclusive

experience. There must be succession in him. His present must be a concrete totality which is the ground of all finite presents; an internally coherent organization which comprehends, in a vast span of attentive or active experience, not only all partial presents, but as well all of the past that is efficiently actual in the present. For, I repeat, there is no reality in past or future except in the actuality, that is, the activity and meaning, of factors in the concrete living and developing present. Since our presents are, not static lines without breadth, but dynamic and complex spans of experience, so God's present cannot be a static and dimensionless "timeless" instant.

If it be said that to admit change into the heart of ultimate reality is self-contradictory, I reply that the whole force of this criticism comes from assuming, to begin with, that absoluteness and perfection mean changelessness and timelessness. I am unable to think a changeless universe except as a dead universe. I am unable to think the ultimate source, and ground, of a living universe as not including change. There is no contradiction in the notion of a whole which includes real and significant change. Such a whole must be an organized and dynamic totality. And the principle of unity of the whole must apprehend change, must itself participate in change.

It has frequently been argued that, inasmuch as the finite self rises above the immediate present in its consciousness of past and future, in thus being able to survey the course of temporal succession, it transcends time. But this time-transcendence is purely *formal* or *logical*. It fails to deliver the self from existence in time and change. The self, which is thus conscious of "before" and "after," thinks such moments as involved in the incompleteness, raggedness, and transitional character, of its present duration. It has, as I have already said, the power of continuously synthesizing successive moments, but this synthesis always grows out of a concrete present which has finite duration. Such formal timelessness means only that the self is a conscious unity which endures through some changes. Time is, for the individual self, a function of experience. The self both changes and knows change through its own mental duration. Time is a function of selves, but of things that are not selves as well.

Various attempts are found in the history of speculative thought, to conceive eternity as a timeless instant, an eternal "now"

or *Nunc Stans,* or as a single *instantaneous* totality of insight (*Totum Simul*), in which all past, present and future events of the finite are eternally seen together.[4] All such attempts are merely essays at defining the inconceivable by purely negative and empty concepts. An eternal now, a timeless instant, are simply not nows or instants that we human beings can give any content to at all. Mr. Royce attempts to give concrete meaning to the *totum simul* by argument from the analogy of a composer or player who grasps in an instant the totality of a symphony or a reciter of poetry to whom the whole poem is in mind in a single instant. But the composer, player, or reciter does not grasp the symphony or poem as a completely played symphony or recited poem at any *instant.* It takes time or succession for the event wholly to eventuate. As he proceeds with his composition or recital he is simply conscious of the *continuity* of the meaning and phrasing in a succession of concrete nows.

It is only in the persistence and progress of persons and in the perduration of their values that we find a genuine clew to an ultimate principle of permanence in change.[5]

The one eternal order has a temporal quality, but it is not in time. Time is not a whole which contains it, for time does not exist as such; it is an adjectival aspect of the ever-energizing self-active ground of the order of selves and values. Eternity belongs to the unvarying self-activity of the supreme spirit. All life, from the lowest to the highest, from sense to spirit, is rhythmical. In nutrition, respiration, pulsation, reproduction, thought, feeling, in the whole individual's history and in the history of humanity, life moves in rhythms. May we not suppose that the very essence of time is rhythmical order and that cosmical time is the eternal rhythm of the supreme spirit and life?

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[4] The latest, most interesting and ingenious of these is Royce's in *The World and the Individual,* Volume II, Lecture iii, "The Temporal and the Eternal."

[5] James Ward, in his *Realm of Ends,* calls this *Axiological Eternity.* I prefer to call it *Axiological Permanence* or *Perduration.*

CHAPTER XXXVIII

OPTIMISM AND PESSIMISM—THE PROBLEM OF EVIL

How can the hypothesis of a supreme spirit of good be squared with all the brutal accidents, insensate stupidities, fiendish cruelties, unmerited sufferings, and insolently triumphant evil in the world? If we conceive the cosmic ground to be a superpersonal spiritual community, must we not admit that it is hindered and thwarted in the promotion and maintenance of good by a cosmic principle of disorder or evil. We seem to be confronted here with a dilemma—either the supreme spiritual order is limited in power and scope or it is not good in the highest human sense, since it tolerates evils which the best human wills would abolish, if they could.

I. Natural Evil

In discussing our problem it is necessary to distinguish between *natural evils,* such as bodily pain, disease, death, and natural catastrophes, and *moral evils* which are assumed to be the outcome of man's deliberate volitions. In the final analysis, all moral evils will perhaps turn out to be the results of human ignorance, folly, and weakness, by which men are led into greater evils that they know not of, because of their efforts to avoid bearing the evils that they know of. But it will conduce to clearness to discuss first the nature and uses of natural evils without specific reference to moral evils.

The most obvious forms of natural evil are pain, disease, deformity, or physical and mental defects due to the operation of natural causes. By natural evil, as due to the operation of natural nonvoluntary causes, I mean those which, so far as we know, could not be avoided by human foresight and good will; for example, if two parents have led clean lives and prepared themselves as fully as possible for parenthood and yet produce a child which is physically or mentally defective, that is a case of natural evil.

The individual who inherits grave defects, or who suffers from the incidence of uncontrollable physical causes is the subject of natural evil.

The indictment of the order of nature for its cruelties or its blind stupidies, as the case may be, has never been drawn in stronger terms than by John Stuart Mill.[1] Since Mill's day the spread of the evolutionary conception of the living world as the theater of the unceasing struggle for existence, the scene of endless and bitter warfare among sentient beings, and of the ceaseless warfare between sentient beings on the one hand and the blind course of insentient nature, has deepened and extended our sense of the suffering and tragedy in the world of life. This sense of the magnitude of suffering has been enhanced by the daily advices we get of diseases and catastrophes in the human world.

The pessimist argues that there is more pain than pleasure, more disease than health, more deformity than normality, in human life and in the order of nature taken as a whole. Therefore, he argues, on the whole, the world order is bad; or at best, it is not nearly so good as, he can conceive, it might have been. It were better not to have been born at all. Schopenhauer, the most brilliant modern exponent of this form of pessimism, which is the basis of the religion of Gotama Buddha, argues that *will is the essence of individuality;* and *endless,* or *never-to-be-satisfied, striving is the essence of will.* Hence, by its very nature, will is forever doomed to defeat, and individuality foredoomed through all eternity to misery. The only way of escaping from the endless miseries is the extinction of individuality, by the cessation of desire. Schopenhauer says: "All living is striving, all striving is suffering, therefore all living is suffering."

The upshot of this form of pessimism is that life is not worth living, and that those who persist in living and procreating more of their kind to suffer the same miseries or perhaps greater miseries than themselves, are fools—are, in short, the blind tools of blind instinct which cheats man with a mirage. Human life is the endless pursuit of will-o'-the-wisps, or phantoms. The will-to-live is engaged in a sisyphian task to survive. It were better that the human race had never come into being. Since it is in being the next best thing is that it should cease to be as speedily as

[1] See the *Three Essays on Religion.*

possible, that human beings should cease procreating their kind. Since the animals live by blind instinct, they cannot escape from the wheel of endless birth and rebirth. But man, since he has the power of reflection, may free himself from the thraldom of the blind will-to-live. Schopenhauer says that the recognition, in Buddhism and Catholic Christianity, of the superior virtues of the celibate life is really an indirect recognition of the principle that the existence of individuals is the root of evil.

This form of pessimism may be called *hedonistic* or *eudæmonistic pessimism* according as it assumes that the unrealizable good is the surplusage of pleasure over pain or of happiness over misery.

We must distinguish between two ideas of psychical good or value: (1) The idea that the good consists in the greatest possible surplusage of pleasurable over painful feeling, regardless of the qualitative character or organic wholeness of personal feeling. This is pure Hedonism. (2) The idea that the good consists in a more or less continuous and growing *organic harmony* of feeling or happiness. The latter I define as the relatively permanent quality of feeling which accompanies the realization of personality. Happiness is the affective index of personal good; if there be more misery than happiness in the universe then the good is defeated in the long run; if the amount of happiness be increasing then the good is winning out; if the amount of happiness be decreasing steadily then the world is going from bad to worse.

Whether there be more pleasure or pain in the world is insusceptible of proof.[2] By the nature of the case, it would be impossible to sum up pains and pleasures and to strike a balance between them. With respect to the animal world, we are certainly not in position to assume a preponderance of suffering over satisfaction. The minds of animals are probably not laden with painful memories or dread anticipations. Enjoyment of the present is much more characteristic of animals than the fear of the future. Their much less highly organized nervous systems would seem to indicate that they enjoy satisfaction and suffer pain much less intensely than human beings. With respect to human life, it is

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[2] E. von Hartmann said that this is the best of all possible worlds and everything in it is a necessary evil. Redemption consists in a return of the world to unconsciousness (*Philosophy of the Unconscious*).

impossible to add together the various satisfactions and dissatisfactions of individual life and to strike an arithmetical balance between them. Even more impossible is it to balance up the diverse and multitudinous satisfactions and dissatisfactions of the human race. In spite of the constant imminence of suffering in human life and its frequent incidence, most people do seem to get many solid satisfactions from life. Granted that many individuals may seem, to those looking at their lives from without or even to themselves in pensive moments, not to get much happiness from life, it does not follow that most people find life worthless. Even those who suffer much are often not pessimists; in spite of pain they may have enduring satisfactions. It is not true that all life is illusory striving. In the purest personal relationships, and in the contemplation of nature, of beauty, and of truth, we do not strive. Still less is it true that all striving is suffering. There is satisfaction in successful activity, there is satisfaction in goalless activity, there is enjoyment of activity for its own sake, and there is enjoyment in the contemplation of progress, in the realization of purposes, in the formation of new purposes as well as in present attainment.

If pleasure be not the highest good, life would not be worthless even if there be not in it more pleasure than pain. But life is more evil than good, if its enduring purposes are not satisfied, if its highest values are not realized; if happiness, in our sense, be not, on the whole, attainable. Since the highest measure of value is the realization of personality in harmony with the universe, if the order of the universe be not in harmony with the realization of personality the universe is not a good order. I cannot accept, as optimistic, the position of those idealists who say that it makes no difference what becomes of persons, or even whether they are happy while they exist; provided that, in some mysterious and inconceivable fashion *values* are conserved. I grant that they are heroic pessimists and I admire their high courage, but I think they darken counsel. If persons go to wrack and ruin this world is bad as a whole, although there is good in it.

It does not seem possible to conceive a world order in which selves should develop into personalities without admitting the real possibility, and actual incidence, of pain, struggle, and failure. The cravings of unsatisfied desire, even the sufferings which come from disease and the blind indifference of the physical forces

of nature to human weal, are stimuli through which man, in grappling with his environment and in some measure mastering it, organizes and refines his own elemental impulses and thus develops his personality. In order to adjust himself to the external conditions of his existence, man must reorganize his own inborn nature. In subduing external nature he acquires dominion over himself. He enriches and harmonizes the raw materials of his own selfhood. Without hunger, sex love, parental feeling, gregariousness, acquisitiveness, self-feeling, constructiveness, and all the other instincts which clamor within his bosom for self-satisfaction, man would neither subdue nature nor become a personality. His primal appetites lead him to industry, industry to science and leisure, science and leisure to greater industrial control of nature, and to the growth and satisfaction of the finer aims of art, literature, science, and social life. His desires impel him to create the family and the community, and to recreate them again and again as the conditions change. His struggles against disease and the hostile forces of land and sea and air develop his powers of thought, action, and social coöperation. Our common destiny, even though arduous almost beyond endurance, evokes fellowship, friendship and love stronger than death. Man is thus able to wrest victory from apparent defeat, to subdue the powers which seem to be arrayed against him. In this struggle he grows in spiritual stature and can, even in the worse junctures, conquer by the heroism and faith with which he faces apparent defeat.

Thus desire and want, pain and craving, are not necessarily evil. They are the conditions of the emergence and energizing of intelligent purpose. They keep body and mind in action; experience is enlarged, knowledge is organized, purposes are matured, and personality becomes actual. The savage has fewer wants, less pain, and duller joys than the highly civilized man. Culture enhances the sensitiveness to suffering and to joy. Would anyone exchange for the life of a cultivated man that of an Australian bushman?

But human instincts and appetites, human emotions and capacities, are often found present in the natural man in such disproportionate intensities that moral evil ensues and we shall now consider this aspect of the problem of evil.

II. Moral Evil

Moral evil is the outcome of man's unsocial sociableness (Kant's phrase). In other words all moral evil arises from the social interactions of individuals. Consider an individual living entirely by himself! He would suffer natural pains and enjoy the natural pleasures of hunger, satisfaction, heat, cold, and of the seven ages of his life; but of duty, obligation, fear of punishment, desire for approbation, guilt or sin, he would have no consciousness.[3] The natural impulses and desires of man are not evil in effect. They all have biological values. They are morally indifferent tendencies of the self, which may be turned to bad or good account, according to the special circumstances of each case. The native instincts and impulses become actually good and evil only when their expression in the individual bears on his relations to his fellows. Indeed the natural impulses have a positive moral significance, since their expression is the condition of the existence of society and of the socialized individual. Without the sex impulse and the parental instinct there would be no family. Without gregariousness there would be no larger community. Without positive self-feeling, rivalry, possessiveness, the creative impulse, there would be no social progress, and no individual development. Even pugnacity and fear have social uses. Moral evil arises when the satisfaction of a specific impulse or desire, in the given social circumstances, conflicts either with the well-being of other members of the social group or with the permanent good of the individual considered as a member of the social group. In other words, moral evil arises when the individual shirks the effort of resisting imperious impulses, the satisfaction of which, in the particular situation and manner, is incompatible with social harmony and progress, or with the organization of his own selfhood; or when he shirks the effort of acting in such a way as to promote the harmony and progress of the community or his own higher selfhood. Thus moral evil arises from the clash of imperious impulses and of the inertia of the sentient selfhood, with the social and rational principles of conduct. In every case, moral evil is isolating and disintegrating; moral good is harmonizing, integrating, organizing in effect. Of course, much moral evil is

[3] *Cf.* Royce, *The World and the Individual*, Vol. II, Lecture ix, "The Struggle with Evil."

due to the blocking and twisting, during the plastic years, of the individual's impulses by an evil social environment. We are just beginning to appreciate how plastic the child is and how potent the environment. It is extremely difficult to draw the line between individual and social guilt.

Thus I hold that no man chooses a continuous or complete whole of evil conduct with deliberation and insight into what he is doing. Choice of evils is confined to particulars, and evil is chosen not as evil, but because the individual does not realize the effects of the satisfaction of the particular impulse upon the organized continuity of his own life and of the lives of other members of the community. Evil is self-destructive or anarchic in tendency; consequently, for a self to choose to be wholly and completely evil would be for it to choose utter self-destruction. This appears to me a self-contradiction. If the Miltonic Satan say: "Evil, be thou my good," he is choosing what, from his standpoint, is not evil. The cult of diabolism which often appears even in a high civilization is the product of mental aberration and a symptom of social disease. It may be urged, in objection to our theory of the social origin and significance of moral evil, that an individual may do evil to himself alone; may, by some series of acts or of failure to act, permanently injure his own higher nature and thus act evilly, even though his evil acts have no social consequences. To this objection I reply that I cannot think, much less understand, the higher selfhood or personality except as involving membership in a spiritual community. It follows that, to use theological terms, sin considered as an offence against good is always an act of disloyalty to the ideal of the perfected spiritual community.[4]

On the other hand, one may sin primarily against one's own higher selfhood, be disloyal to one's own personality. It is possible to exaggerate the social bearings of moral evil and to underestimate its individual locus and significance. The ideal community is one of *free persons;* therefore, betrayal of one's own spiritual individuality is social treason. The two aspects are inseparable. Personality is social, but a spiritual society is a community of rationally free individuals.

[4] In this connection I beg to refer to the profoundly true interpretation of sin by Royce in *The Problem of Christianity.*

The possibility of moral evil and its consequent actuality is involved in the very nature of finite selfhood. I cannot conceive a world which is to be a "vale of soul making" that does not of necessity imply the real possibility of moral evil. It is an indispensable condition of the development of free personality. In this sense it is an inevitable fact of the world order. A world of selves, developing into persons through the organization of their instinctive natures, in the light of reflective insight and rational choice, is a world in which moral evil must of necessity appear. It is then an unavoidable but mitigable feature of a universe in which a community of rational self-determining persons is realized. Huxley somewhere says that he would rather be like a perfect clock and turn out automatically unerring results in thought and conduct than be an erring and sinning individual. For my own part, I am utterly unable to understand how a universe of perfect automata could be regarded as more perfect than a universe of self-determining persons. Furthermore, a universe of perfect automata is a scientifically impossible notion.

Moral evil is actualized in the social-historical life of civilization. Subhuman nature and pure savagery, if such there ever was in the history of man, can know nothing of the problem and conflict of good and evil. The so-called opposition of the cosmic and the moral orders, is an opposition engendered within the social-historical life of human culture.[5] The evils which retard and thwart the realization of the good are born of the conscious conflicts of men with one another. The historical process of humanity is a world rife with conflict and suffering, with error and unreason; a world which moves slowly and toilsomely towards some dimly apprehended, and in part unknown, goal.

III. Evil and the Idea of a Perfect Being

Our final and most difficult problem is this—assuming that there is a supreme and perfect order, the overself or spiritual community which is the sustaining principle of all human values, how are we to reconcile this assumption with the existence and distribution of evil in our world? I have defined moral evil as sin against the ideal of the perfect person as a member of the

[5] *Cf.* T. H. Huxley, Romanes Lecture, *Evolution and Ethics.*

perfect community, and I have pointed out that moral evil is always a disintegrating or disorganizing factor in the life of the individual and of society. By consequence, the more organization and harmony there is in the lives of persons as members of a community, the more do persons approximate to the ideal. But, since we have already argued that the supreme value and ground of all lesser values must be the supreme existent, we must hold that the ideal of spiritual perfection is not a mere humanly engendered ideal, that the ideal of the perfect personal community is not a mere product of human social life, but must rather be at once the ground and the goal of individual and communal life, and therefore must be the most real reality. Our present problem, then, is how to reconcile the evil in the world with the reality of absolute perfection.

One attempted solution of the problem, which is hinted at in the Timæus of Plato, further developed by the Gnostics and which crops out again in John Stuart Mill, Huxley, H. G. Wells, and many others, is that the power of God to realize the good is hindered by some blind irrational matter. Thus, there is an ultimate or metaphysical dualism between the physical and the moral orders, between matter and mind or spirit. God is limited by this blind force external to his will which hampers the realization of values.

Since we have already rejected metaphysical dualism, we cannot accept this solution. No doubt the operation of blind physical forces and the clamancy of fleshly impulse are the immediate conditions of much natural and moral evil. But, on the other hand, the physical basis of human life, its biological groundwork, is not immoral. It is the raw material of the moral and indeed of the whole personal life, and, since moral goodness and evil inhere only in persons, a dualism based on the opposition of the moral and the physical order is no solution of our problem. Since man is a part of nature in the fullest sense of the word, his ethical and other spiritual qualities are natural qualities, offspring of the whole cosmic order. Indeed, it is inconceivable that an impersonal cosmos could have split itself in two, by giving birth to beings who can intelligently oppose, condemn, subject, and try to explain the parent order for having mysteriously engendered in them qualities or powers which are superior to the order from which they have sprung. Since the whole of reality is a universe,

if God is limited and thwarted by the universe's order, he too, like man, must be a by-product of a blind impersonal order; and his perfection, like man's imperfection and aspiration, must be an inexplicable and mocking delusion. Either the whole of reality is more perfect than any one of its finite parts and the defects of the parts do not mar the perfection of the whole, or man is the highest being in the universe and is superior to the blind and stupid mechanical order of which he is a miraculous by-product.

A second form of dualism we may call *personalistic,* since it assumes a cosmic personal power of evil, the devil, Satan or Ahrimanes, who opposes the cosmic personal power of good, God or Ahuramazda. The earliest form of this ethical or personalistic dualism is found in the ancient Persian Religion, from whence it passed into Judaism and Christianity. In its best forms this doctrine does not hold to an irresoluble dualism. The devil is to be conquered, the good is finally to triumph. But it offers no solution of the origin of evil, except when it boldly admits that the devil is the creature of God, thus making God responsible for Satan's doings and misdoings. The doctrine has no empirical evidence in its favor. If taken literally, it is open to the objection that it cleaves the universe into two worlds and leaves us with an irreconcilable dualism on our hands. The ultimate unity would be a nonmoral principle of fate transcending both God and the devil and their respective hosts.

If one does not admit the probability either of the existence of a cosmical devil, or of the existence of an ultimate dualism between the order of physical nature and the ethical order,[6] how is one to account for the apparently needless prodigality with which suffering is strewn on man's pathway by powers beyond his control, and for the flagrant discrepancy that obtains between the distribution of evil and the ethical merits and demerits of men? Before entering upon a discussion of this question I desire to premise that our human categories for classifying our fellows on scales of moral merits and demerits are at best rather clumsy and wooden, and are always in danger of being warped by the Pharisaism which can see the mote in the other man's eye much more easily than the beam in one's own eye. Perhaps the sun shines on the good and the evil and the rain descends impartially

[6] I say advisedly, "probability."

on the fields of the just and the unjust, not because the Lord of sun and rain is insensible to moral considerations, but because, from His higher viewpoint, our hard and fast clear-cut classifications of our fellows into sheep and goats look rather pedantic and insignificant.

The synthetic purpose of the world-order, if it have a purpose at all, must be the development of persons in inner individual harmony and in interpersonal harmony. But such a world-purpose necessarily involves imperfection, struggle, suffering and conflict. There is this feature common to the rigidly mechanical conception of reality and to the doctrine that reality is an eternal absolute, that in both cases all purposive activity is illusory. The eternal absolute, without seasons, history, or fruits, is just as worthless to man, just as indifferent to the concrete and passionate significance of human life, as a blind mechanical cosmos.

Any purposive and living world of individuals then necessarily involves some evil. Physical evil, I have argued, is largely due to man's ignorance and imperfect adjustment to his environment. Thus far it is partially remediable, and the effort to remedy it is productive of a better organization of personality and of society. Most moral evils, possibly all, are due to lack of a vital self-possessing insight on the part of men as to their true interests and goods. That the mechanical operations of the brute forces of nature work great evil to man cannot be denied. The irrational and unjust distribution of physical catastrophes and of disease and suffering suggest that the cosmic will has to struggle in the face of hindrances which he did not set up. On the other hand, since we never know the final issue, it may be that the cosmic will has set up these hindrances as the indispensable conditions for the development of finite selfhood.

Whether one holds that the cosmic will is conditioned from without by a blind force, or that he is self-conditioned, in that the development of a world of individuals can be willed by him in no other way, the upshot is the same—*if the purpose of the world-order is the development of a world of individuals into full personality, this purpose can be accomplished only at the risks of physical suffering and moral evil.*

It is not conceivable that a perfect spirit, aiming at the best, should have called into being a multitude of sentient and intelligent beings who should be subjected to so much suffering and

failure, if he could have done otherwise. Either the over-self did not call into being these selves; or he did not establish *all* the conditions under which their lives must be developed and enjoyed; or, if he is the author of all that is and may be, there remains for us an inscrutable mystery surrounding the lives of sentient and intelligent individuality, and the things that seem to us to thwart and even to wreck these lives must really in some fashion, unknown to us, further them.

In any case the meaning of life is, in part, expressed and realized through the sin, error, and suffering of selves as well as through their goodness, knowledge, and joy. What then becomes of the moral and intellectual distinctions of our deeds and lives? Do these collapse into the indifference center of an absolute totality, in which all distinctions of moral worth are merged and lost? No! Since the error and sin of finite selves are transitional factors in their moral growth, these defects and failures must be real for the supreme experient or overself. The distinctions of moral value are not obliterated in the whole of reality. Evil is not a mere empty defect, not mere absence of good. It is, in character, oppositional to good; just so error is not the mere absence of truth, nor ugliness the mere absence of beauty; they are oppositions. Thus, our human values involve contrast and opposition or negation. As Hegel would say they exist in relation to an other. The whole spiritual life involves the dialectic process, the setting up of and the overcoming of opposition. (This is what Hegel means by the power of the negative or of contradiction.) But the good transcends the evil, by including and transforming it, just as the truth transcends error by transforming and including what was wrong in the erroneous judgment and as in beauty the same elements, which in disorder constitute ugliness, are transformed into a harmonious individuality. In error a genuine datum of knowledge is put in its wrong relations; the error becomes truth when the datum is put in its right relations. The artist takes the same materials of sense that in one arrangement give rise to ugliness or discord and produces harmony and beauty. In evil action an impulse or desire is affirmed in the wrong time or place or too much or too little. The good is harmony, proportion or order, in the expression of impulse, and the satisfaction of desire.

Thus, the reconciliation of the opposition is not achieved by

canceling the distinction between the opposites, but by a conquest in which the positive higher qualities overcome and absorb their opposite. In error the individual's judgment falls short of reality; it distorts the latter by failure to grasp the systematic relationships of facts. In moral evil the individual will assumes an isolated or particular interest which conflicts with the rational and social character of the self as an organic whole of interests, an individual totality, by falling short of its full meaning. The principle of truth and goodness is the same—*wholeness* or *harmonious individuality*. Evil, thus, is irrational because it is particularistic and isolating. It is the defect in feeling and conduct of some more pervasive and harmonizing quality of the universe of selves. *Evil is negation, but it is not bare negation. It is negation by the exclusive affirmation of a part against, or regardless of, the whole in which it properly functions.* The positive moral significance of the part is found in making it into a working factor in the totality of individual life and social order.

In so far as the individual lives in the light of the harmonious and total relationships of his own desires and values, he overcomes the positive defects which constitute evil, by becoming a coöperative member in the community of persons which is the goal towards which the whole creation moves. Thus he ceases to be an isolated bundle of impulsions and becomes an organ for the fulfillment of the universal values.

We reject the notion that the doctrine of a finite God struggling against obstacles, whether personal or impersonal, to realize the good which he would, if he could, achieve at one blow, offers a satisfactory solution of the problem of evil. Such a God is practically useless and theoretically a contradiction. He would be a God who is no God, but only a somewhat bigger man. There would only be some difference in scale, and a difference not determinable, between his weakness in the face of the cosmic counter-currents and the weakness of man. If man be helpless in the face of a hostile universe or an indifferent universe, let us bravely face the music and be done with childish make-beliefs about pragmatical gods! If, on the other hand, we have grounds for the larger belief that the supreme order is an order of values, why should we boggle at admitting, as we must, that both physical evil and moral evil are contributory to the perfection of the whole! Nor can we evade this conclusion by arguing, as some

pluralistic theists do, that God is not responsible for evil, since he endows man with free will and evil arises because, in the mysteriousness of his capricious freedom, man wills to do and to be evil. The problem is only thus evaded by pushing it behind us, for, if God creates man with a mysterious power of indeterminate and unmotivated choice, surely He is responsible for having so created him. The only sense in which I can admit human freedom is that the self, to a limited and varying degree, is a *real and growing center of rational action.* True freedom is self-determination under the guidance of rational ends. The individual is responsible for the use of his reason and, thus far, responsible for his character. Indeed, *he is his character,* which is not a physical quantum, but a developing capacity. Since finite selfhood involves growth, self-development through deliberation, choice with error, man is responsible for his deeds in so far as he is responsible for his own growth. But for his original nature with its limitations within and without himself, he is not responsible. God, then, must be the ultimate ground of the real possibilities which, in the definitely varying qualities and conditions of human persons, flower into good and evil acts. God or the cosmic spiritual order is responsible for the fact that evil can, and, therefore does occur. Evil is inevitable but not irremediable, in part at least.

Why a world of conscious individuals exists to develop by conflict, and to perfect themselves by way of error and suffering, is perhaps a fruitless question for philosophy, which must take the world as it finds it. According to Christianity the motive of creation is *self-manifesting, self-imparting love,* which brings forth finite spirits as its objects. In this world the birth of conscious volition is the beginning of moral evil. Individuals develop from natural and nonmoral beings into the life of reason, love, and ideal values generally, through social conflict.

In the birth of consciousness and reason, in the development of the social and moral life, moral evil originates as the offspring of the very process of reflection which brings forth culture. Historically, then, evil is the fruit of the tree of knowledge, and the evolution of human culture is fruit of the same tree. The evolution of culture, scientific, æsthetic, and religious, is the evidence that the good, defined in terms of personal values, is realizing itself through the struggles of humanity in its historical process.

Through all its blind confusion, wasteful errors, and dire evils, human history does, it seems to me, show the working out of ethical and spiritual values through the instrumentality of individual lives coöperating in social groups. Does this imply the reality of growth in the supreme self? Such a conclusion seems unavoidable. The supreme self cannot live in otiose and blessed contemplation, apart from the world of finite struggling selves. It must comprehend and take up into its own life all the passion, struggle, and pathos of man's history. It must transcend, and yet work through, the elements of "negation" and "finitude" that pervade the dynamic and developing life of the world of historical selfhood. The supreme self's experience must grow with the historical progress and personal development of finite selves. The supreme good must be a living and growing harmony of differences, a peace won and held through opposition, a communion that pervades and maintains itself through the developing lives of many individuals.

In so far as moral evil is actual it seems to hinder the realization of ethical values, and thus to subtract from the fullness of the good. So speculation has been led, in the interest of the vision of the perfect whole, to argue that this is the best of all *possible* worlds. We can conceive worlds that, *in some respects,* would be better than this one. Whether, on the whole, these conceivable worlds might be better than our actual world no man can say; for no man can compare the actual world *as a whole* with other possible total worlds. Leibniz' pyramid of worlds, in his *Theodicy,* is a pretty fancy; but a logically vicious argument in that every possible world is just a partial variant, in some particulars, of the actual world.

The only *kind* of world we can really think is a world like our actual world in its general features, with minor variations introduced in some of its details. All we can say is that suffering and other forms of evil are inevitable in a living and temporal universe. In this sense evil in the parts is necessary to the goodness of the whole; but why the evil in the parts should be so grotesquely distributed, and why there should be so much of it we do not know. It is impossible, in terms of rational insight alone, to harmonize the distribution of evil in the world with the idea that the whole is perfect, or that there is no hindrance to the will of an omnipotent and benevolent being.

When absolute idealists [7] talk glibly about evil being "illusory appearance" or mere negation or absence of good they are indulging in vain babblings, in a word-play which is impertinent in the face of intense suffering, genuine sorrow or unmerited catastrophe. They are guilty of the same sort of quibbling as the Christian Scientists. To say that evil is defect is not to explain it away, since a defect may be the cause of great suffering. Moreover, gruesome disease, physical or mental, is not mere defect; intense suffering and loneliness and despair are positive states.

When Pope sings "all partial evil universal good" he fails to consider the question—"good to whom?" If the whole looks good to the absolute, but bad to most of the members of his world, then I say that on the whole the world is bad. It is small comfort to be told that the world is good as a whole, if one cannot enjoy the same outlook as the absolute. If finite selves can enjoy the goodness of the whole then it is good just in so far as its members have this enjoyment.

The darkest mystery enveloping the problem of evil is the unjust distribution of suffering. The connection between physical evil and moral quality often appears capricious, irrational, and cruel. The individual suffers for the guilt of others, or for their unavoidable ignorance; often for his own unavoidable ignorance. Careless or ignorant of individual desert, nature works out her nemesis of compensation through the biological and social solidarity of the race. The innocent suffer for the guilty, but to what end? And nature often seems to inflict greater penalties for ignorance than for enlightened sinning! Vicarious suffering is a common fact. By virtue of the solidarity of the race, and of some mysterious, though tardily effective, connection between moral evil and physical suffering, the innocent and the wise must suffer vicariously for the guilty and the ignorant. Careless of the single life, nature seems to care only that in the long run adjustment be made. In this way undoubtedly the principle of the good is served through the solidarity of the race. And the vicarious sufferings of the good no doubt, as Plato, the Hebrew Deutero-

[7] Mr. A. E. Taylor, for example, in *Elements of Metaphysics*, pp. 395 ff. This I understand does not represent Mr. Taylor's present view. *Cf.* Browning's facile optimism in *Abt Vogler*. This is the optimism either of a healthy and happy human animal or of one who cheats himself with words that do not correspond with facts. Many theologians and philosophers have been guilty of the same procedure.

Isaiah, and the New Testament writers have taught, are great redemptive factors in the spiritual life of mankind. The highest love is one that redeems through suffering. Nevertheless, we do not understand why such an apparently unjust method of moral development and progress should be compatible with the unique worth and meaning of the individual life. By these considerations of a universal connection of moral evil and suffering the problem is only pushed one point farther back. If one refuse to accept an ethical-metaphysical dualism with its unreconciled opposition of two warring powers of good and evil, or a chaotic pluralism of powers, one must assume that the relation of the supreme spirit to the race is not the same as his relation to the individual. One must assume that the spiritual development of the individual, through striving and suffering, is a necessary condition for the spiritual elevation of other individuals, and for the spiritual elevation of the race. But, surely, the individual soul cannot be a mere means in this spiritual process! The suffering of the best must be a step in the spiritual ascent of the sufferer who thus reaches a higher perfection, and, in so doing, becomes an instrument in the upward growth of his fellows. The vicarious sufferer must be the crown of the race's progress, and, hence there must be for him an immortal life brought to full fruition under other conditions than those of earth. The most worthful individuality must be conserved. The possibility of the conquest of evil can become a reality only if the protagonists in the warfare for human perfection thus win immortality, and, in so doing, become the instruments by which their fellows may likewise win it. If suffering, and, especially vicarious suffering, be the means of victory over evil, then the victory is lost and meaningless unless the spirits of the victors endure. The supremely good self is thwarted and ofttimes defeated in the struggle unless his finite agents are immortal.

In short, while the problem of evil cannot be satisfactorily solved, and recourse must be had to the postulates of moral faith, the most satisfactory view is that the process of psychical and spiritual evolution is a movement that can achieve its ends only through suffering and moral evil. If one take this view and, at the same time, hold an ethically monistic conception of ultimate reality, one must believe that suffering and evil are factors in the experience of the supreme spirit.

The doctrine of a suffering and self-sacrificing God, of one who is eternally made perfect through his sympathy and fellowship with erring and sinning humanity, is so far from being out of harmony with an ethical conception of the universe, that I should rather maintain that it is the only doctrine of God that at once squares with the facts of experience and does no violence to the ethical consciousness of man. In no other aspect of its teaching does the Christian religion in its original form show itself truer to the deeper meanings of man's spiritual experience than in its bold and profound doctrine of a divine redeeming love that is expressed through suffering, a divine life that is made perfect through sacrifice, that conquers and is enriched through overcoming its negation.

The goodness of a supreme self then cannot be the bare negation of the evil that is in the world. It must be the positive self-expressing goodness that holds its perfection through companying and suffering with the evil, and thus transmuting the latter into an instrument or factor in a positive perfection.

Our main business is not to save the universe, nor to help a limited deity in his difficulties. Our main business is to save ourselves by losing ourselves; by finding our true selfhood in subjection and loyal obedience to the order of spiritual values, to the all-inclusive and all-transforming ideal of perfection which is the most real reality. The higher life, the life of the spirit, consists in the individual's making himself the instrument and dwelling-place of spiritual integrity; "In Whose will is our peace," "Whose service is perfect freedom" since it is the fulfillment of personality through possession of the spirit of wholeness. Wherever and whenever in thought, in selfless volition, or in selfless affection and contemplation, we put our entire individualities in the service of objective social and impersonal interests; in the service of truth, justice, harmony, order, and progress towards perfection, wherever and whenever we elect to serve the ideal of the perfect spiritual community, we transcend evil in transcending our lower selfhood. It becomes a vanishing, because transformed, defect. Its discordances pass away in the harmony which we behold and become.

We cannot so account for the evil of the world as to explain the beneficence of all forms and amounts of evil. We may hope and believe

. . . that somehow good
Will be the final goal of ill

* * * * *

. . . That good shall fall
At last—far off—at last, to all,
And every winter change to spring.

—TENNYSON, *In Memoriam,* 53.

But we cannot *prove* that it will be so. The most one can say is that it *ought* to be so and *if* the ruling principle of the universe be spiritual it *will* be so.

We have but faith: we cannot know;
For knowledge is of things we see;
And yet we trust it comes from Thee,
A beam in darkness let it grow.

* * * * *

I stretch lame hands of faith, and grope,
And gather dust and chaff, and call
To what I feel is Lord of all
And faintly trust the larger hope.

—*In Memoriam,* 54.

O Living will that shalt endure
When all that seems shall suffer shock,
Rise in the spiritual rock,
Flow thro' our deeds and make them pure,

That we may lift from out of dust
A voice as unto him that hears
A cry above the conquered years
To one that with us works, and trust,

With faith that comes of self-control,
The truths that never can be proved
Until we close with all we loved,
And all we flow from, soul in soul.

—*In Memoriam,* 130.

CHAPTER XXXIX

METAPHYSICS AND RELIGION

I. The Methods and Aims of Metaphysics and Religion

Metaphysics and religion are similar in motive and aim. They both presuppose the recognition of the incompleteness and inner discrepancy of the realm of actual experience, of the fragmentariness and disharmony of the actual life. Neither in the naïve interpretations of actual experience nor in the special sciences can satisfaction be found for man's desire for integrity, harmony, completeness, and stability in the world which is the objective condition of his experience and his desire. In brief, the deepest need of man as a reflective being is for a coherent and stable universe, a dependable order with which he can put himself in harmony. Thus metaphysics and religion are alike in that they both seek to satisfy the human demand for a comprehensive and consistent world view, for a doctrine of the true meaning and value of human life in its relation to the world-whole. The religious devotee and the philosopher alike endeavor "to live resolutely in the Whole, the Good, the True." Essential to both are beliefs in regard to the nature of reality as a whole and in regard to the place of human values in reality. And the fundamental difference between ethics or systematic doctrines in regard to morality on the one hand, and metaphysics and religion on the other hand, is that, whereas in the moral systems we have beliefs in regard to what are the true values of life, in metaphysics and religion we have doctrines as to the place of these true values in the total scheme of reality. I remark, in passing, that the idea frequently broached that the way to escape from the difficulties of reconciling religious dogmas and scientific dogmas is to make religion undogmatic or nondoctrinal, to turn it into a system of pure morals or even morals touched with emotion, is to disembowel religion. While

admitting the significant difference between *theology,* the systematic theory of religion, and religion as an actual attitude of mind, I must insist that a religion which involves no doctrines or definite beliefs in regard to the nature and meaning of reality as a whole is no religion for a reasonable being. If morality touched with emotion be a religion, that can only be because the emotion with which morality is touched is one of *reasonable confidence in, and reverent admiration for, the order of the universe;* and certainly such an emotional attitude cannot exist without a definite belief as to what really is the order of the universe. Every religion which has counted for anything in human life has involved quite specific beliefs as to the nature of reality as a whole, and, more particularly, as to man's place therein. *The idea of God,* or, in more abstract terms, *of the universal and eternal reality, is the fundamental concept of religion.* A religion which does not tie the soul of man up with some permanent reality beyond the shows of sense is no religion. The de-natured definitions of a religion without a God-idea, which various writers have offered as a way out of the difficulties in squaring religion with materialism, do not correspond to any historical or actual working religion. For example, to identify religion with the service of unrealized and purely human values, while denying to these values a cosmic foundation, is a confusion of thought.

If religion and metaphysics arise from similar motives and have similar objects, wherein do they differ? In the first place, for the philosopher they do not differ. For, since a philosopher's metaphysics is his rationally worked out theory of reality, his religious attitude must take its color from his doctrine of reality, just as the religion of a nonphilosophical person must take its color from theological dogmas which he accepts and believes. In the second place, the theological dogmas accepted and believed by the nonphilosophical religionist are traditional forms of metaphysics which he accepts without critical examination. The theology of a church, for example, consists of certain propositions in regard to God, man, and nature, which involve a certain attitude of mind and will. These propositions have been formulated in the past, by certain persons or groups of persons assumed to have been competent in ability and authority to interpret the revelations as to the ultimate nature of reality and the value and destiny of the soul made by divinely accredited teachers and revealers.

A church is a social institution established and carried on to propagate a specific type of conduct based on an accepted type of religious metaphysics.

A man's reaction to the nature of things as a whole involves his own nature as a whole. It brings into play his emotional and will attitudes, no less than his imaginative and conceptual powers. A religious attitude is the response to the demand of the whole personality for a perfect and enduring life in which the buffeted and distraught individual life or group life can find repose and strength. "Underneath are the everlasting arms." The psychical complexion of religious experience and attitude varies with individuals, groups, and epochs of culture. In all cases, however, the need for a religious faith goes down into the very roots of the personal and social life—and these roots are the feelings and emotions in which the self or the group assumes the supremacy and the permanence of their fundamental valuations of life. Because of lack of training, inclination, or leisure, and in part too, because of lack of capacity, the average person does not seriously attempt to think out for himself a doctrine of ultimate reality and of values. He takes these, for the most part, second-hand. Through the influence of suggestion and imitation he accepts the dogmas of the group in which he is nurtured. If he breaks away from them, under strong emotional stress, he is very likely to accept the dogmas of some other group. In the religious attitude of the average person reflective thinking plays a secondary rôle. Social suggestion, imitation, the sentiment of group loyalty, are the most powerful factors in determining the ordinary man's religious attitude. The religious group and the individual, as a member of the group, in order that they may go forward in the work of realizing the highest values of life, and may find consolation for the present loss of values, make a wager of faith. They take risks because of the interests at stake. The need for action, or the need for consolation, is great and urgent, and there is not time or inclination for an unbiased investigation in this most difficult and comprehensive of subjects—the problem of the nature of reality—so the traditional dogma is accepted.

Thus, religious dogmas are accepted because they meet the urgent needs of the group or the individual; but these needs in turn have been molded by the influence of the group—the church. Now, the fact that an individual wants a certain thing is not

sufficient evidence either that he will get it or that he ought to get it. But, if many individuals, and especially in a long succession of generations, have seemed to want the same things, that is commonly taken as a reason for the justice of the want and the likelihood of its satisfaction. It is forgotten that similarity of wants only proves that we are all made of the same old needy human nature. It is a fact that the very persistence of a certain social type of conduct and belief creates a presumption of its correctness. The history of theology and religion abundantly substantiate the view that the modifications which they undergo are determined chiefly by the whole complex of cultural factors operating in an epoch; and that, by reason of social and mental inertia, once a type has become established, it tends to persist; for example, the juristic or substitutionary theories of the atonement in Saint Augustine and his successors took their color from the legal theories and practices of the feudal Empire engaged in trying to maintain itself and keep the peace amidst the welter of semi-barbarians which it comprehended. Such a theory simply could not have been originated in the Athens of Socrates and Plato.

The authority of the group code of conduct and of dogmas is referred back to its source in a divine revealer. Moses, Jesus, Mohammed, are regarded in their respective religions as the media of specific primary revelations. The church becomes the authoritative custodian, interpreter and dispenser of the primary revelations, the latter being usually enshrined in sacred oracles. The church has its constituted authorities for the interpretation of the oracles. Thus, in this, the most persistent type of religion, the group organization and the traditions of the group mind, play the principal part. The individual's spirit is subordinate to the group spirit. It is only as a loyal member of the group that he can approach the deity to gain strength or favor from him. Early morality is tribal custom, and early religion is tribal feeling and tribal ceremonial which involves tribal welfare. Organized religion (and most of the phenomena of religion still have to do with organized or institutional religion) is the centralized expression of the social bond. All public religious rites, ceremonies, and obligatory acts, have to do with the sense of social solidarity. The relationship to the divine is the culminating expression of group-relationship. Organized religion is thus, from the outset, the

expression and consolidation of social values. It seems to be only late in the history of religion that the individualistic sense of private personal relationship to the divine comes into play.[1] Even thereafter the authority of social tradition and organization continue to play the major rôle in determining the character and expressions of the religious life. Common worship, common beliefs and acts, are normal and most frequent phenomena of religion. Even the enlightened individual to-day is deeply influenced in his religious attitude by tradition, early training, and environment.

On the other hand, just as morality has progressed from tribal custom to the ethics of free and rational personality, so religion has progressed; and the highest type of religion is that which has its roots in the attitudes and evaluations of free personalities. This is all the more the case when the religious attitudes of free personalities involve a clear sense of the religious basis of social order, coöperation, fellowship, and loyalty to common causes. An increasing recognition of personal freedom and responsibility in matters of religious faith and practice means spiritual progress, not the decay of religion.

For the second and highest form of religious relation is the individual's *insight, intuition,* or *act,* in which he communes with the Divine and knows and obeys the Divine Will without any traditional or social intermediary. The individual feels himself in some sort of immediate relation to the Divine. I call this form "mysticism." It has many varieties, from the sensuous emotionalistic mysticism of the Sufi and of certain Christian mystics, to the intellectual vision of God of a Plotinus or a Spinoza, the austere moral visions of the Hebrew prophets, and the simple ethical or "spiritual" mysticism of Jesus, St. John and St. Paul. *The highest type of religion is ethical mysticism. This is faith in, service of, and communion with the Highest or Perfect Being regarded as the living and transcendent ground of the supreme spiritual values—in short as the source and sustainer of moral personality and the ideal social order.*

Ethical mysticism has, of course, in the history of religion, been made the starting point for new religions of authority, based on the assumption of a static and finished revelation expressed

[1] *Cf.,* in the religious development of Israel, the work of the *Deutero-Isaiah, Jeremiah,* and *Ezekiel.*

through supernatural events, written down in sacred books, and conserved by sacred organizations. Thus the fresh and first-hand vision of new spiritual ideals has been dimmed and even lost. For all modes of religious experience and expression intermingle in religious history. Organized Christianity contains elements of dualistic supernaturalism, of magic and mythmaking, of authority worship, of emotional and speculative mysticism, of prophetic and ethical freedom.

Once it is admitted that the authority of the group and its traditions are not normative for the determination of the doctrine of reality and of human values, there are only two ways open to such doctrine—one is the way of unregulated individual sentiment and the other is the way of reason. The way of individual sentiment may satisfy its possessor but it does not, by itself, lead to any socially valid principles.

The way of reason is *metaphysics* or *rational theology.* From the standpoint of reason the authority of an organized social group and its traditions cannot be accepted without inquiry, for, in the first place, there are so many of them and they are discordant; in the second place, historical inquiry shows that they are the resultants of a complex of cultural traditions—political, economic, intellectual, physical, and so forth. The authority of sacred oracles is subjected similarly to the dissolving power of critical historical inquiry. Miracles do not authenticate revelation; for, *first,* they are claimed as the authenticating grounds of conflicting religious systems; *second,* if by miracles be meant especially divine interpositions which interrupt the order of nature, they are not in harmony with the tested methods and principles of science; and *third,* if by miracle be meant the manifestation of a higher law which we do not understand, the argument is an appeal to ignorance.

No supposed occurrence in the past history of the race can be accepted, without critical inquiry, as rational authentication of dogmas concerning the nature of reality. For any assumed extraordinary occurrence or extraordinary personality could be accepted as the source of a revelation of the nature of reality, only if it could be brought into harmony with the interpretation of present and living experience in the light of reason. To admit this principle is to admit the superior authority of the rational interpretation of actual experience and of man's present valua-

tions. As Lessing and Fichte put it, not the historical, only the metaphysical can save us. This is not to deny that the words and deeds of great historical personalities may illumine the present problems of life and reality. If Plato or Aristotle can still instruct us in regard to thought, values and reality, so can Jesus or St. John. But if we cannot accept the doctrines of Plato, in so far as they are inconsistent with the rational interpretation of our actual data concerning nature and man, no more can we accept doctrines or supposed deeds of Jesus that are not in harmony with such interpretations. *The only witness that has any final authority is the witness of the rational spirit in its work of interpreting and organizing the facts of living experience.* In short, metaphysics, as the persistent effort of the human reason to attain a comprehensive and coherent insight into the nature of reality as a whole and the place of human values therein, is the only *rational* foundation for a religious doctrine of the world. If one abandon subjection to group suggestion and imitation, submission to the authority of historical organizations and their traditions, and decline to become the prey of unregulated emotionalism, the only way for the attainment of a religious world view that is left for him is the way of metaphysics.

Special sciences cannot give us a world view for two reasons: (1) No special science, for example physics, biology, or psychology, has for its province the coördination into a harmonious synthesis of the fundamental outlines of a rational conception of the world. This is the province of metaphysics. (2) With respect to human values, with regard to the nature of truth, of goodness, of beauty and love and their interrelations, the special sciences are neutral; they do not deal with the problem of values. It is the province of metaphysics to formulate a doctrine of values and of the place of values in reality.

Religion is essentially a doctrine of values and the place of values in reality. Religion is not concerned directly with the physical order, but only indirectly with the relation of the physical order to the order of personal and social values. It will greatly conduce to the vitality of religion when its representative teachers abandon, once and for all, the intellectual and spiritual confusion involved in the intermingling of the exposition and service of spiritual values with primitive and discredited cosmologies. If the religionist will leave the interpretation of the genesis of the

physical order to the sciences, if he will abandon the mistaken effort to validate religious values in terms of an invalid theory or dogma concerning nature, and abandon the attempt to authenticate the values of the spirit in terms of physical miracles which cannot themselves be validated, a great gain will be won. Religious thought and devotion can then be concentrated upon the clarification, intensification, and realization of spiritual values. Let the religionist recognize too that the problem of the relation of spiritual values to the nature of reality as a whole is one to be attacked by rational reflection; that is, by philosophy or metaphysics. Thus, by applying the traditional and organized force of religious institutions to the spread of rational reflection in regard to the fundamental problems of human life, he will do his part in saving humanity from the recrudescence of blind superstition, on the one hand; and from the social and moral confusion that results from the disintegration of traditional institutions and beliefs, on the other hand. "Ye shall know the truth and the truth shall make you free." The truth can be known only through the exercise of the rational spirit. In this way alone are we made truly free, even though what we know is the uncertainty of our knowledge.

The interpretation of the meaning of religion and the determination of its function and validity in the lives of rational beings is thus a principal task of metaphysics. *Thus far, metaphysics is the philosophy of religion.* Indeed, the principal parts of metaphysics are the philosophy of knowledge, of nature, and of human personality; and the philosophy of religion is the culminating point in the metaphysics of personality.

It is the province of the *comparative philosophy of religions* to determine the psychological features of the chief types of religious attitude and experience in individuals; to consider the functions of religious institutions (in which are included systems of religious dogmas or doctrines) in the social history of the race; to trace the evolution of religion from its beginnings in animatistic nature worship, through the most significant stages, from crude polydæmonism to the most elevated forms of ethical and spiritual religion in which the values of a free personal and communal life become the central norms for the interpretation of reality; to weigh the respective values, for man's cultural development, of the principal types of religious attitude and expres-

sion. Finally, it is the province of the *philosophy of religion, as metaphysics,* to weigh the claims of religion to embody truth as to the relation of human values to the order of the universe, in the light of the general principles of the scientific theory of knowledge and cosmology. In particular, the following questions constitute the critical problems for an epistemology and metaphysics of religion: (1) Is there a specific kind of religious knowledge—personal intuition and revelation of the divine order as embodied in the religious genius? If personality be the best clue to the meaning of the world process; then, since religion involves the entire personality, it may be that the religious genius is a revealer of the meaning and vocation of personality in a fuller sense than the scientific, the practical, or the artistic genius. (Indeed, every significant religious attitude seems to be a poetry of values clothing a metaphysical content.) (2) What is the nature, value and destiny of human personality? (These are most crucial questions for the metaphysics of religion.) (3) How are we to conceive the nature of God and His relation to man? Can we on rational grounds, and in the light of the various main aspects of experience, establish a justification for a rational faith in a supreme spiritual reality who, as the creative and sustaining ground of all existence, is the absolute good or ground of spiritual values? If we have the right to believe in such a being, what are, and what may become, the relations of the human spirit to Him? What is the relation of the evil in the world to Him? Finally, what is the relation of the whole process of natural and human history to His life and activity? Concerning these problems of the metaphysics of religion I have already given such answers as I could. If I were to write other volumes on this subject, they would consist only in amplifications and illustrations of the views hereinbefore advanced.

The following remarks may serve to make the foregoing statements clearer. Religion has a social-historical character, since religious conceptions of value are personal affirmations and experiences, and persons always live in social and historical connections as members of specific cultures. Because of these social and cultural influences religion is ever associated with the changing intellectual, economic, political, and artistic complexions of historical cultures. No religious genius has ever existed who has not spoken his spiritual message in terms of the mental-social life

of his own day and generation. Religion is a projection on the roaring loom of time of a concentration or unified complex of psychical values. What these values are in content, and what their status is in relation to the other values of culture, is always determined by the reaction of the creative personalities, who found and modify religious traditions, to the cultural complexes of their own times and places in history. Prophets, founders, and reformers of religion appear at definite points in the stream of historical evolution. They occupy determinate situations in the cultural life of humanity and their individual creativeness is due to the interplay of a powerful personality, rich in moral sensitiveness and productive imagination, to the cultural and natural environment. A new religious system thus always arises in the fullness of time—in other words, when several clashing and reinforcing cultural currents are moving in the social life, struggling and blending together. Hebrew prophetism arose in the moment of such a crisis in Hebrew social life. Ancient Christianity arose when richer and more varied cultural currents met and partially opposed one another, partially blended together in the much richer stream of Hellenistic-Roman culture, cross-fertilized with the last and profoundest expression of the spirit of Hebrew prophetism. Ancient Christianity was a creative spiritual synthesis. The elements which gave rise to it were the powerful and creative personalities of Jesus, St. John, St. Paul, and others, the neo-Platonic and Stoic religious philosophies, and the mystery religions.

The supreme paradox of the religious attitude, of religious experience and faith, is that, while it is always historically or culturally conditioned, it is essentially faith in the *meta-historical* or *eternal quality* of the values which it sees and serves. There is no genuine religious attitude, whether of revealer, prophet, mystic, or humblest worshiper, that does not, to the experient, bear the quality of lifting his soul and its values and aspirations above the raging torrent of time. For religion is essentially concerned with *God* as the perfect embodiment of the supreme values of life; and with the relation of the soul of the individual, and of the group life in which he participates, to a Divine Reality in which there is neither variableness nor shadow of turning. But this supreme paradox is not peculiar to religion, in the more specialized sense of the term. It is the final paradox which per-

vades man's whole spiritual life, which enters into every function of his soul. *Now* and *here* man seeks, finds and contemplates truth and goodness, but the true and the good must be eternally valid as the apprehension of reality. Now and here he creates and enjoys beauty, but beauty must be the revelation to his soul of the eternal harmony. Now and here he seeks fellowship, justice, and integrity, but these moral qualities must have a permanent nature, otherwise they would sicken and die to-day. He loves his fellows, he loves beauty, harmony, and justice. At once he is gone or the objects of his love have vanished; but they were eternal values. All that man values, strives for, loves, and serves seems to disappear in the cruel maw of all-devouring time. In religion man denies that his cherished values vanish into the dark backward and abysm of time. In religion he affirms, in the fleeing moment, the eternity of values. Thus the paradox of religion is simply the consummate expression of the paradox of life. Religion sees and feels *under the form of eternity.* If there be nothing eternal but the restless and relentless passage of all values out of nothingness through a feeble and vacillating existence into nothingness again, then all religion is a vain delusion. Then the first and last word of metaphysical systems must be that of a mere Nirvana—an eternity of nothingness. Then all is vanity —including the quest of the scientist for the truth, of the moralist for justice and integrity, of the devotee for love and beauty. And the proposition that all is vanity and nothingness is vain; the only remedy for the troubles of man, the ills of society, and the puzzles of thought, is to cease to think and to live, if live we must, by instinct alone.

But while we cannot do that and while metaphysics may consist "in finding bad reasons for what we believe in instinct, to seek those reasons, is no less an instinct," [2] I hope that, without further explication, I have made it clear that those who contemn religion and metaphysics put themselves in the ridiculous position of beings who, while unwilling to give up thinking entirely, are unwilling to think things through to the end, because it is hard work. I do not mean that it is everybody's business to think through these weighty and difficult problems to the end for himself, but I do say that he who refuses to give a hearing to those

[2] F. H. Bradley, *Appearance and Reality,* Preface.

who do attempt to think them through, on the ground that the work is troublesome and yields no quick returns or even obvious profits in the end, stultifies himself as a thinking being. Every man to his taste, but let him who is satisfied to be an oyster be a consistent oyster and live the part, thereby ceasing to pretend to be a man! If the power of rational reflection be one of the differentiæ of human beings, then he who refuses to carry on this power to the point where it deals with the highest concerns of reflective life refuses to be truly human. Most stultifying and self-contradictory are those who, while blatantly proclaiming the power of thought to probe, to understand, and to control physical data, biological data, and sociological data, sneer contemptuously at metaphysics and theology, because the latter do not enable men to make bigger machines, and more material goods, to build sky-scrapers, or to increase dividends.

And those who would reconstruct society and who would heal the divisions in the body politic without a metaphysics or religion, simply by collecting economic and sociological data and directing a new social polity based on such data alone, are attempting to build on a quicksand. Let philosopher and religionist beware of hearkening to the clamor that they become practical sociologists, that they give up speculation and contemplation, and jump into the hurly-burly of political and economic reconstruction. How can we reconstruct society unless we have first determined the *goods,* the *values* or *ends,* which we ought to seek? And how can we determine the meanings of *good* and *value* without a reasoned inquiry into the nature, value and destiny of human personality and its place in the universe? I hold that even imperfect religion is a much surer guide to social reconstruction than a crassly positivistic and utilitarian social polity, based on pseudo-scientific sociological generalizations.

Inasmuch as religion is the affirmation that the higher values, that are imagined, worshiped, and served in human existence, and by which the spirit of man is thus possessed, have a secure and enduring standing in the nature of reality, metaphysics is, thus far, simply the method of rational interpretation and justification of religion. The fact that the religious attitude is primarily, in its popular manifestations, one of feeling and volition, and only secondarily a reflecting attitude, whereas, the philosophical attitude is one of sustained rational inquiry; must not

blind us to their community of aim: to lay hold on the world, and to serve the higher spiritual values, to discover, and to live in and for the transcendent values, by every function of our psychical being. Philosophy, like religion, involves faith in the enduring values of existence; but philosophy sets the value of rational comprehension and harmonious organization of all values in the light of thought in the primary place; whereas religion, in its traditional and popular manifestations, sets the emotional and volitional values in the primary place. There is between them no inevitable incompatibility. The light of reason is not a killing frost that destroys the emotional and practical values; nor can the latter values be well served without rational reflection. Indeed, there is a deeper harmony between higher manifestations of religion and philosophy: for, as Plato long ago taught, the motive of both is love—love for the good, the true, and for spiritual beauty; for that which abides when all else seems to suffer shock, for the whole and eternal. If the philosopher's love is directed chiefly towards ideals or universal values, he must not forget that these actually live and move and have their being only in persons. If the religionist live primarily for souls or persons, he must not forget that souls become persons and gain enduring value and reality only in so far as they become the embodiments and ministrants of ideals or universal values.

Theology, if it is to be distinguished from metaphysics, can only be the historical and systematic exposition of the doctrines which are normative in and for a specific historical religious institution—a church. Theology is thus the offspring of a social and historical organization or institution. It has its genesis in the *value-experiences,* and *faith-affirmations,* in the *cults* and *polities,* that have arisen and developed in specific and historically continuous social groups. *Thus a universal theology would be identical with a philosophy or metaphysics of religion.* Thus, when theology ceases to be the purely historical and systematic exposition of the dogmatic foundations of the value-experiences, and faith-affirmations, the cults and polities, of specific historical organizations or churches, and seeks to establish as universally normative certain interpretations of religious life, it must become identical with *philosophy* or *metaphysics of religion.*

In short, the final account of the claims of religion to involve a universally significant and valid truth must be taken by a meta-

physics of human values; in other words, by a rational construction which will interpret the controlling ideals of man's spiritual life—truth, beauty, love and all forms of human value—and organize these into a harmonious system; and which will weigh the final question as to our right to believe that these values are at home in the universe.

Religion, as a vital force in society and history and in individual lives, is not a by-product of philosophy. It is a native and bulky factor in man's cultural life. It contributes very weighty data which metaphysics or philosophy must take into account in framing a world view. It is as expressions of the creative spiritual development of individuals, peoples, and cultures, that religions and theologies are taken account of by philosophy; in other words, as living documents for the understanding of human experience, human feeling, volition, and thought, as reactions to the spectacle and impact of the sum of things. The great historical theologies, for example, of Saint Paul, Saint John, Origen, Saint Augustine, Calvin, Schleiermacher, sprang from the interaction of sensitive and creative personalities with the spiritual currents of their times. No historical theology can be fully valid for another and a different time. But a theology from the past, like a philosophy or a social polity, may have considerable value for the present. Men change, but mankind remains the same; in other words, while the intellectual and general spiritual climate undergo secular changes, there are permanent needs, interests, and values in human nature. Human nature is plastic, modifiable, but it does not seem to undergo great metamorphoses.

II. Is There Immediacy in Religious Knowledge?

All genuine first-hand religion, whether of the learned or unlearned, involves the belief in the experience of a personal relation to the Highest.[3] This is true, I hold, even where the Highest is not conceived as a Person or Personality. Even in Buddhism, although in its origin it was a religion without God, redemption or salvation is an immediate or mystical union of the individual with the absolute—the state of Nirvana. It is, of course, true that the transcendency, the awful mystery and majesty of God

[3] *Cf.* the fine discussion of this matter in C. C. J. Webb's *Divine Personality and Human Life,* especially Lecture vii.

may be so emphasized, as in some phases of Judaism and Mohammedanism and, frequently even in Christianity, as to render the object of worship inaccessible, except by intermediary, to the devotee. Nevertheless the very heart of religion is union or communion in feeling or immediate experience, and, by consequence thereof, in will, of the devotee with the Highest. If religious experience be valid, then the worshiper's claim to know God *immediately,* by *intuition* or *insight,* must be allowed reasonable.

Such a claim cannot be disallowed by pointing to persons who have no such experiences or convictions; any more than we can refute the validity of æsthetic experience by pointing out that for many people there is no beauty or joy in poetry, music or painting or even in a sunset or a snow-capped mountain range. Indeed, one might just as well argue that the color spectrum is unreal because one is blind. It takes two to make a quarrel or a love affair; and it takes two to make a veridical experience, the experient and the object.

Indeed, all our scientific, as well as our æsthetic, interpretations are based on immediate experiences. There can be no genuine knowledge of reality except in so far as there are veridical data of experience. Those who would rule out of court the possibility of an immediate experience of God, on the ground that all knowledge involves mediation or experience, forget that mediate or inferential knowledge rests, both in its beginnings and its successive steps, on immediate experiences and insights. There must be data of sense before there can begin to be a knowledge of the physical world. Even in the case of deductive chains of reasoning each link is based on intuitive self-evidence. There is no opposition between immediacy and mediation; rather an interdependence and constant interplay back and forth. We reflect upon, analyze and synthesize, our immediate experiences and insights; and thus, through mediate reasoning, gain more comprehensive intuitions. I would say that immediate knowledge (in perception and intuition of self and other selves) is always the basis of knowledge; mediate reasoning, both inductive and deductive, is the way to reflective insight or interpretation of the primary immediacies in knowing; synthetic intuition is the goal. Reflective insight is no less rational because it is direct insight; it is no less intuitional because it is reflective.

But it is objected that one can know other persons only by

analogical inference, and if one cannot know a human person immediately one certainly cannot claim to have an immediate experience of the Divine. I have already in Book I and Book IV discussed this matter fully. I have argued that we must assume the existence of other selves in order to get under way with knowledge and action. There is no escape from solipsism, if one begins with it. Moreover, one cannot really begin with it. In fact we have an immediate acquaintance with other selves, just as we have an immediate experience of physical things. Empathy (Einfühlung) is the technical name given to this direct experience of other selves. My intuition of another self's life is just as direct as, often more so than, that of my own inner life. Indeed, if one loves another person, one's "sense" of that person's attitudes and feelings may have an almost uncanny swiftness and sureness. It is true that one may be mistaken in regard to the minds of others. It is true that one's immediate experiences of the presence of another conscious life require to be reflected upon and corrected by mediate reasoning. In principle there is no difference here between the knowledge of persons and the knowledge of physical things. Immediacy in both cases is the starting-point and goal; mediation by discursive inference is the way, and this way is a succession of immediate or self-evident insights which play back and forth; the process of inference is not linear. Objection to the possibility of immediate communion with the Highest as the heart of religion may be drawn from the countless aberrations, crudities and illusions with which the history of religion is filled. But, in principle, the same objection might be raised in any field. The more complex and significant the data and problems, the more varying and imperfect must be the actual knowledge as compared with its object. Such a trivial and abstract proposition as $2+1=1+2$ does not leave us much room for error. But when we come to the canons of art and letters, to social polity and personal relations, we have rich fields for partial and erroneous interpretations. Our individual experiences are partial and our points of view often very partial. To admit that, in the richest and deepest personal experiences, man knows the Highest imperfectly and fragmentarily, to recognize freely that one's personal experiences of the Divine are limited and colored by one's own individuality and culture, is not to confess them illusory. There is a deep but dazzling brightness in the Highest, in the Perfect. We may see

through a glass darkly; but even so, we may see. Moreover, since it is in personal life, in personal spirit, that the most adequate embodiment of God can be found, if anywhere; and since no human life can embody the whole of the Godhead, although a human life might embody adequately his character and will towards man (as Christians believe in regard to Jesus) the experience of the Divine in human life may, while adequate in principle, be imperfect and growing.

On the other hand, direct experience of the Divine can only be a *value-experience,* an experience which is judged to carry a positive worth for the spirit. Its divinity must reside in its value, or significance. The claim to a direct experience of any value-reality transcending the limits of human nature, cannot be allowed to be conclusive in the court of philosophy. It can be admitted that a divine significance or worth inheres in the contemplation of the starry heavens, in the enjoyment of beauty and sublimity in nature, in the tragedy and comedy of the human lot and, above all, in the vision and appreciation of human character, of love, friendship and utter devotion. But this is an *immanent divinity of value.* At best it bears witness to the degrees of worth in which an immanent spiritual life is operative within the limits of human experience. Thus, for example, to speak in terms of the only religion of which I have any first-hand knowledge, to say that God is experienced through Christ could mean only that the highest and richest values of the spiritual life are experienced in the Christocentric life, and are mediated through Christ.

To affirm that these values have a transcendent cosmic ground is to pass beyond the limits of human experience by an act of faith which has its source in the feeling of supreme value which attaches itself to the Christian experience. One may believe that these spiritual values have their source and ground in the transcendent and self-existent principle of things (God the Father); but such a belief transcends the limits of human experience. It is *not knowledge* in a philosophical or scientific sense.

Furthermore it is, intellectually, a confusion to argue from the experiential immanence of those higher values in human social life, which are called Divine because they are the highest values, that any historical person can be regarded as the sole source of these *values* and the sole original and continuing medium of their revelation. It may be true, for example, that a historical person,

Jesus of Nazareth, expressed and embodied a new and deeper concentration of spiritual values, but it does not follow that the historical Jesus *is now* the immanent source of higher values. The Christ of present value-experience cannot be simply the restored figure of the man Jesus. Only the immanent spirit of God in humanity which carries forward the realization and experience of spiritual values can be the living ground of the present experience of the Highest. It is perhaps a beneficent illusion that leads religionists to believe that, in realizing a new and deeper concentration of the spiritual life, they are going back to the historical Jesus. But it is none the less an illusion.

I do not mean that the attempt to determine more precisely the historic character and relationships of Jesus is not eminently worth while; but I note that judgments thereon, the interpretations of the documents and the person, are conditioned by the categories of the interpreters' world view or metaphysics. The historical does not save men; only the immanent and living spirit saves them. This conception is in harmony with the deepest wisdom of the New Testament. "It is expedient for you that I go away; for if I go not away the Comforter will not come." "But when he the Comforter is come he will lead you into all the truth." "The truth shall make you free." "The words I speak unto you are spirit and truth." "I determined not to know Christ after the flesh."

On the other hand, in religion and morals, as indeed in all that appertains to the culture of the human spirit, it is not in the passing moment of civilization, not in the ever-fleeing present, that the spirit can find the sufficing materials and patterns for its nurture. It is in the historical or time-spanning realities of cultural systems, of objective and enduring spiritual structures, that the "spirit," as something much more concrete and rich than a mere biological self, lives; and it is on these realities that the spirit is nourished. The spirit comes to its own only by living within what Hegel called "Objective Mind"; in other words, by participation in the continuing though changing life of historical cultures—in the intellectual structures embodied in science and philosophy; in the ethical structures embodied in moral, political and other social institutions (of which educational institutions are of chief importance); in the æsthetic structures embodied in letters and the fine arts; finally, in the religious structures

embodied in the whole tradition and spirit of organized religion. (It is, I trust, needless to say that these culture systems are not bits of a mosaic which as a whole constitutes the culture of an epoch; they interfuse; the culture of an epoch has a living unity with diverse facets.)

I have already discussed this aspect of spiritual life more fully, especially in Chapter XXVIII. It may suffice to say here that, when I say that historical tradition alone is an insufficient ground for living religion, I mean that the historical tradition must be assimilated, relived and tested by present conceptions and needs in order to have valid meaning and to prove effective now. Man, as a spirit, is a historical being; he spans time; but history must make good with the living by lifting his spirit above the din and confusion of the exiguous present, by freeing him from the "all-too-human" of the passing moment; it must serve as the liberator of the spirit, not its shackler. The conservative who would bind the living wholly to tradition chokes the spirit and blocks progress; the radical who would throw tradition to the dogs tries to fly in a vacuum. The liberal is he who uses the traditions of the elders for the enrichment and expansion of the living present.

So it is in religion. To be more specific: The members of a Christian culture cannot live fruitfully and fully, if unregardful of their great traditions; nor can they live at all if the traditions become iron bonds; the life and thought of the founders of Christianity continue to be fountain-heads of faith and conduct, in so far as they can be brought into a harmonious synthesis with the ethical and intellectual and æsthetic interests and concepts of the living present. If the past cannot serve the needs of the present it is dead and gone. For example, the validity of the Christian view of life and the world can no longer be established in terms either of Greek metaphysics or Mediæval cosmology or Roman law and feudal polity. The Christian view must come to terms with the science, metaphysics, social psychology and ethics of the present time; otherwise it will simply cease to interest intelligent persons.

In brief, the claim is admissible that men can have a direct experience of the Divine in the sense of the Highest values, if we recognize the immanence of the Supreme Spirit in the world and, specifically, in human life. In this sense we may say that, while the over-self must be superpersonal in that he must tran-

scend the limitations of human personality and oversocial in that he must transcend the limitations of human society, social personality must have its ground in him. It is much less untrue to say that he is a superpersonal community than to say that he is merely the impersonal spiritual bond of human society. He must transcend and include whatever is of worth in social personality.

It is not within the province of a treatise on general metaphysics to consider in detail the problems of the philosophy of religion. What I have written above I have done with the intent to indicate: 1. The points of contact and relation between metaphysics and religion and the logical position of the interpretation of religion in terms of philosophy—what used to be called *natural theology*. For the latter study, in the proper sense, is no longer an attempt to prove the existence of God by arguments drawn from the evidences of design in nature; as philosophy or metaphysics of religion it is human theology—the enterprise of considering the place and value of religion as an experience and attitude of universal humanity. 2. I have insisted that the philosopher must treat the facts and implications of religious experience with the same respect that he accords to the facts and principles of the physical and vital orders, if he is to construct an adequate world view. Religious experience in the individual and religion as a form of social culture are both interwoven with arts and morals, economics and politics; in short with the whole social order. The philosophy of religion is not merely a part of, it is, in a sense, the culmination of the philosophy of culture.

III. The Meaning of Faith

Faith, in its general sense, includes two psychical factors: (1) The sentiment or affective-volitional attitude of *trust* or *confidence;* (2) the ideational attitude which supplies the content, the image or concept, of the object of faith. One cannot believe without having some idea of that *in* which he believes.

Faith is the attitude of personal trust or confidence. "Faith is akin to faithfulness and implies faithfulness in the object." [4] One is willing to act or to repose if one has faith; one is ready to risk one's personal fortunes on the venture of faith. Loyalty, obedience, trustfulness are different *nuances* of the faith-attitude.

[4] Höffding, *Philosophy of Religion*, p. 117.

A faith is a strongly held belief—a belief on which one will stake something valuable. Faith is always directed towards the future. It is the strong presumption that conditions which now obtain (although one does not fully see them) will issue in results favorable to values or interests in which one has a stake. Thus faith is dynamic, forward looking. In a wholly static universe there would be no occasion for faith. Faith is indeed the conscious form of the *vital impetus* (*L'élan vital*).

Faith and hope are closely related. A strong hope or expectation is a faith. A weak faith means a vacillating hope; but the chief distinction between faith and hope is that faith is a volitional or active attitude of a person, whereas hope need not involve any active volitional attitude. I may hope that a certain thing will come to pass and yet doubt, whereas, if I have faith my doubts are at or near the vanishing point and I am ready to act. Of course, one *may act* without hope or as a "forlorn hope"; and so without faith.

Faith is a nearly constant condition of human action. Every day we go about our business with faith in the institutions of our country, in our friends and colleagues, in our families, in our own powers, and in the order of nature. Faith in the possibilities of human nature is the presumption upon which most workers for the good of humankind proceed. We live forwards and we must always proceed upon the *assumption,* at least, that things can be made better. The complete loss of faith would paralyze action. Even the most critical scientist, scholar or philosopher works upon the assumption that there is a true or intelligible order of things which can be discovered by patient effort; the artist has faith in the value of beauty; the good man has faith in the supreme power of integrity and justice. Without faith human life suffers from creeping paralysis. Indeed, faith is essentially a moral act, an expression of the essential will; it is the deep of the believer's ethical character calling to the deep of a postulated kindred character, the affirmation of the spiritual quality of the self.

Faith is always personal or quasi-personal in reference. Even faith in beauty, in abstract truth, or in the order of nature, implies that these things further human values. Faith in God is trust in the good will towards personal life of the highest reality.

Faith is frequently set up as antithetical to knowledge or sight. And it is true that where we have certain knowledge, as that $2 + 2 = 4$, we do not require faith. Faith, I have said, is directed towards the future and implies that its *objective* will be realized—that the present unknown conditions of its realization are nevertheless effectively real. But faith is not blind, except when the faithful is blinded by passion. A man may have faith in a worthless woman or friend, because blinded by affection. But a reasonable faith is based on a combination of probability and interest. I have faith in my friend, because he has proved himself my friend; in the order of nature, because it has stood thus far; faith in my country, because of its achievements and promises; faith in myself, because of my knowledge of my powers; faith in all these things, because I need them in the business of living. Thus, faith is an anticipation or forecast of fuller knowledge, based on the union in various degrees of partial knowledge and human need. Faith is compacted by productive imagination out of experienced fact and its interpretation quickened by interest.

I will conclude with a brief indication of the interrelationships of personal valuation and religious faith. Faith in *God* is the global or integral presupposition or postulate of the attainability of true goods by the spirit. Faith is the expression of man's growing and dynamic spirit. If the world were utterly unintelligible or indifferent to man faith would be wholly an illusion and science and practical cultural progress delusions. Faith in God is simply the completion, the rounding out, of all lesser or partial faiths. I may remark that the scientific attitude implies a reverence for fact, for truth, that is in quality not different from religious reverence. Faith in God may be based on several or all of the following grounds:

1. The well-nigh universal tendency in mankind to believe in a supreme power or powers, "the determiner of destiny," as Mr. J. B. Pratt puts it. In view of the illusory beliefs that have been universally held this motive alone will not weigh heavily with intelligent persons.

2. The continuous and widespread existence and influence of religious institutions as factors in culture. This proves no more than that organized religion and the beliefs on which it is based have been important factors in every civilization thus far.

3. The fact that those who conspicuously have had faith in God seem to have received thereby unity, peace and strength of mind and to have been enabled to live vigorously and happily. This is the pragmatic argument from the fruits of belief. Against it may be set forth the evil fruits of superstition and fanaticism and the fact that some persons have lived vigorously and happily without belief in a God.

4. The reasonable appeal of the teachings and personalities of prophets and revealers. This ground is relative to the individuality and culture of the recipient. Its real strength depends on its harmony with the next two grounds.

5. The synoptic consideration of the order of nature and of human life, when this leads to the conclusion that it is reasonable to believe in a Supreme Cosmic Order that makes for goodness (in the inclusive sense of all values).

6. Personal experience of the harmonizing and strength-giving power of faith—immediate experience of the Divine. This is sufficient for him who has it. I may add that only the fifth and sixth grounds seem to me really convincing to a thinking person. Of course, if, on these latter grounds, one is convinced of the reasonableness and value of faith in God, the other grounds reinforce his faith. And they play into one another.

The problem of the place of values in reality is the taproot of religion.[5] *"The feeling which is determined by the fate of values in the struggle for existence is the religious feeling.* It is determined, then, by the relation of values to reality. This relation, as it manifests itself to men, determines the value which they assign to existence. Religious judgments, therefore, are secondary judgments of value; in comparison with the primary judgments of value in which the first two groups of values find expression they are derivative.[6] The two other groups are (1) the values connected with self-assertion; and (2) the values connected with the service of transindividual interests, such as the ethical, æsthetic and intellectual life. Höffding calls the religious feeling *cosmic vital feeling.* I call it *cosmopersonal feeling,* since I hold that it always involves the place of personality in the cosmos.

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[5] *Cf.* the very fine discussion of the psychology of religious experience and faith in Höffding's *Philosophy of Religion,* especially Part iii, "Psychological Philosophy of Religion."

[6] Höffding, *op. cit.,* p. 107.

Höffding conceives the fundamental essence of religion to be faith in the *conservation of values;* but, since all values have actual being only in persons, the conservation of values means the conservation of personal spirit. How can values be conserved or enhanced, if the actuality in which alone value lives be not conserved or enhanced? *I would say, then, that the feeling which is determined by man's fundamental convictions as to the place of personality in the cosmos is the religious feeling, and religious faith is the act of trust of confidence that the universal order will conserve and further the life of personal spirits.* Anything less than this is an emasculation of religion.

There is involved in the question of the progress and continuance of rational spirit in individual form, in other words, of personality in the universe, the fate of all the cherished creations, discoveries and evaluations of the human mind—of truth in science, of beauty in the enjoyment of nature and art and of beauty, harmony, integrity and justice in human life.

No thinking person can be indifferent to the religious problem, since with it are tied up all other spiritual issues. Indeed, the seeming indifference or even active hostility of many persons to religion is due rather to the failure of conventional religion to find a home and sustenance for the higher spiritual values. A religious faith that does not find welcome for all beauty and that is not open to the spirit of free science is the foe of human progress and sins against the spirit of religion. When the gods arrive the half-gods must go. Genuine religion involves faith in the existence and accessibility, through worship, of a *value-reality* that transcends the facts of external nature and of purely immanent human culture. The attitude of *worship* or *devotion* is *the* religious attitude in its fullness. Its object is the transcendent interfusion of reality and value. Faith asserts the reality and supremacy of the Highest—the perfectly Holy—as the fulfillment of what is aimed at in the highest spiritual value-attitudes of personality.

> What is the Holiest? That in which now and always the Spirits,
> Ever more deeply feel, are ever more fully at one.
>
> —GOETHE.

God, the object of faith and worship, transcends and includes, in his concrete livingness, the *true,* the *beautiful* and the *good,*

which are partially glimpsed, served and enjoyed by personal spirits. Religious faith is strong only where man has a strong sense of the value of the personal spirit as supreme over impersonal things and forces. No one can worship force or life without personalizing them.

Faith is not a mere act of will. It is the supreme expression of man's entire personality. It is implied in all vigorous willing.

There are, as Höffding points out, with fine understanding, certain broad types of faith, as well as minor individual nuances. These broad types conform to the prevalent need of interest. They correspond to temperamental differences in persons and also to secular changes in the spiritual climates of human civilization. The chief of these types seem to be:

1. Faith in an attainable perfect peace; satisfying the need for deliverance from the "slings and arrows of outrageous fortune," of escape from the turmoil, the wretchedness and emptiness of the world—world-fleeing faith. "Come unto me all ye that are weary and heavy-laden and I will give you rest." Extinction of desire, the abnegation of individuality in Christian, Vedantic and Buddhistic mysticism and monasticism are good examples of this type.

2. Faith in the opportunity for self-development or self-realization, for the unfolding and exercise of one's powers. "I am come that ye might have life and have it more abundantly." This is the highest Greek ideal, as expressed partially in Plato and more fully in Aristotle. It is the prevailing ideal in modern ethics—in Shaftesbury, Joseph Butler, Goethe, Schleiermacher, T. H. Green, F. H. Bradley. Höffding puts "confident boldness" as a distinct type and cites Luther's expression thereof—"God is that whereat a man may provide himself with all good and find a refuge in all need; to have a god therefore is nothing else but to believe in him and to trust him from the heart." This is scarcely a distinct *type* of faith, it is rather the expression of a vigorous faith.

3. Faith as the satisfaction of the desire for æsthetic and contemplative union with the universe. This is peculiarly the type of faith which appeals to reflective and contemplative natures—to philosophers, especially speculative mystics, and to philosophical poets. It is found among speculative thinkers in all cultures—in the Upanishads, in Plato, Plotinus, in the

Mediæval mystics and scholastic philosophers, in J. Boehme, in Spinoza, Novalis, Fichte, Hegel, Wordsworth, Tennyson, Emerson and Walt Whitman.

Taken by itself each of these types is one-sided. In the universal religion place must be found for them all; for all are phases in the life of personality; the attainment of inner harmony and peace is a condition of self-realization, and union with the universal order is a part of it. But the most inclusive conception is the *fulfillment of personality,* for in this is included both action and contemplation, both peace and striving, both self-denial and self-assertion; for it is the realization of spiritual individuality in the service and enjoyment by the unique self of the lasting values of life. The universal religion is faith in the enduring reality of personal spirit; the doctrine of the value-content of personality belongs to ethics, the comprehensive theory of values. Religion is faith in the cosmical status of personality. The norms of religion are ethical; in plain words, the value of a religious faith is tested by the adequacy of its ideal of personality.

In conclusion, if we seem to have reduced religion to a merely human process, so that religion appears to be only the psychical reaction of leading individuals, and of social groups who follow their lead, to the tangled mass of human experiences, let it be remembered that the only sort of objectivity that will stand the test of philosophical criticism is the objectivity of a universal reason, universal moral nature and a universal spiritual insight and faith, working themselves out through the endless wealth of human individualities and cultural groups. The devotees of special sciences are apt to fall into the naïvely realistic attitude that they are dealing with things in themselves and eliminating human reactions. One principal use of philosophy is to remind the man in the street and the scientific dogmatist that every theory, every dogma, in science, social polity, and religion, is anthropomorphic. Human thought and conduct have concern only with a world of human experience. Philosophy delivers us from our individual caves, from the idols of the market-place and the forum, it delivers us from petty idiosyncrasies, from class and group provincialism, by delivering us into deeper understanding of and sympathy with the universally human.

POSTSCRIPT

The doctrine of personality developed in the foregoing work implies a social philosophy whose guiding principle is that personality is developed through the active and free participation of the self in the life of the *objective spirit,* which is embodied in social institutions or culture systems—economic, civic, educational, scientific, æsthetic and religious—directed towards the cultivation of personality. I hope to present some applications of this doctrine in a volume of essays on social philosophy.

In the meantime I venture to say that the fundamental problem of West-European and American society to-day is the readjustment of mechanistic industrialism and democracy to the native and inexpugnable craving of man for personality. In every department of our social life the pressure of mechanism on personality increases. Emerson would be appalled at the extent to which his words: "Things are in the saddle and ride mankind" have become a literal statement of the plight of our civilization. "Getting and spending we lay waste our powers." The marvelous progress, during the past hundred years, of mechanical science and industry, should have freed man's spiritual energies for a much more extensive and intensive cultivation of fine living. One might have expected a widespread cultivation of liberal imagination and spiritual feeling; flowering in a finer and freer fellowship of noble minds quickened to a more lively appreciation and enjoyment of nature, art, letters, science and philosophy, in a life of urbane social intercourse.

Instead of all this machines have enthralled the western mind. The two general obsessions seem to be the enjoyment of rapid motion nowhither, and the possession of more means of material comfort. Western man has developed machinery to do his bidding, but he tends to become the slave of his own machines and of his own body and its animal appetites, which are the only parts of him that mere machinery will serve. Everything fine in our industrial democracy is being endangered by mass impulses, mass appetites, mass imagery and quantity production to feed the mediocre mass soul. The standards of education, thought, scholarship, taste, and character are low. In fact it can scarcely be said that any standards obtain general recognition. There is little reverence for the past or for the finer things in life; there is widespread lack of moral courage, of mental sanity and rational self-control, of self-reliant spiritual character. We may be going fast towards a thoroughly mechanistic barbarism, varied by anarchical outbursts of primitive impulses.

It is common to lay our present troubles to the Great War. The

War cured no social ill, except, *perhaps,* overweening militarism and imperialism! On the other hand, the War was the outbreak of a malignant growth that had been long developing within the body of western civilization. It exaggerated the ills of prewar civilization—material repletion with spiritual emptiness, neuroticism, perverted eroticism, practical materialism, social conflict breeding an irrational radicalism and an equally irrational reactionism, the vulgarization of life.

The widespread irrationalism, the cult of crude impulse, the proclamation of a raw and sensuous egotism, the bitter illusionism and skepticism of our younger so-called "realists" in literature as to the possibility of any worthy and satisfactory values in life, the loss of any guiding ideals of conduct, and the decay of religion as a form of social control, coupled with the widespread hunger for a new religion—all these things are symptoms of the more or less blind reaction and craving of the human soul in the face of the advancing tide of practical and theoretical materialism. There is that in man which must and does revolt against his being treated as a mobile self-feeding and self-propagating machine.

I am in hearty sympathy with every desire and effort of men for finer, richer and more harmonious lives. I am in opposition to the superstitions of materialistic industrialism and crude egalitarian democracy. A finer civilization, a richer and happier life for man, will not be brought to pass merely by increase of material production, by industrialism alone; even though the distribution of the product be more nearly equalized through mass control; indeed, if these superstitions continue to grow our civilization will go to smash. The "stand-pat" capitalist and the materialistic socialist or radical are in the same boat, spiritually. Their standards of life are the same. It is, between them, merely a question of whether the big animals who have been ruling the herd shall have most of the provender, or whether the little animals shall have what has hitherto been the lion's share.

What the western world needs is that (without the recrudescence of hereditary class-culture), the *principle of spiritual aristocracy,* or the leadership of the finer values of reasonableness—self-discipline, cultivated imagination and devotion to the things of the spirit—shall be recognized as the standard and guide. Western society must, if it is to be saved, gladly follow the leadership of those who are dedicated to the service of the higher values. Only a fuller development and application of the ethical and other spiritual insights of the creative mind, to education and social administration, can bring healing to the nations. We need, in addition to the application of the prin-

ciples of a liberal and humane ethics, a simpler and more universal religion of the spirit, a religion freed from the encumbering baggage of discredited cosmologies and dualistic ethics.[7] I have not referred to the thought of India or China in this connection, because it is not clear to me whether these forms of spiritual culture have any important positive contributions to make to our spiritual life. But India and China at least furnish great examples of how a rich life may be lived without the material comforts and industrial madness of the west.

Probably the present disillusionment at the failures of industrialism and democracy is, in part, the effect of the collapse of the too high-pitched hopes of the nineteeth century. Perhaps the *relative* amount and power of creative and directive thought in Western civilization is as great as, or even greater than, in any previous time. To over-praise the past and to depreciate unduly the present is a fallacy to which the middle-aged and the old are always prone.

Over against the diseases of Western industrialism can be set, as grounds for optimism, the increasing interest in education, notably in the liberal education of adults as well as of youth, the vigorous activity in all lines of intellectual enquiry and the spread of the scientific temper of mind; finally, the earnestness with which traditional forms of moral and legal custom, as well as the forms and methods of traditional religion, are being challenged and subjected to a penetrating scrutiny.

Western society stands on the threshold of a new epoch; it is the more necessary to insist that only through a substanial increase in the proportion of well-balanced individuals, combining stability of character with well-furnished, open and searching intellects, can the new epoch become a glorious one in the record of humanity. Social machinery, however cunningly elaborated, is not only worthless; it is a positive hindrance to the best life, unless it be subordinated to the development of spiritual individuals. The paramount duty of the present and the great hope for the future lies in the education of the individual.

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[7] I may refer to two articles of mine—"Democracy and Intellectual Distinction" in *School and Society*, Vol. v (1917) pp. 421-430, and "The Functions of the Faculty in the Administration of a University" in the same journal, Vol. xii (1920), pp. 449-458, reprinted in the volume *Educational Problems in College and University* published by the University of Michigan; also "Philosophy and the Crisis in Civilization," in *The Field of Philosophy*, 3rd edition.

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